

Cluster Development and Poverty Alleviation: Policy Suggestions



Foundation for MSME Clusters

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1. Backdrop

Efforts have been made to reduce poverty in India, since at least the era of Planning that started in the 1950s. As a proportion of the population, poverty in India declined since the mid-1970s through a variety of instruments induced during this process. Poverty is much lower now in the northwest region of India as well as in the Indo-Gangetic Plain, in the coastal districts of the Indian peninsula and most of the southern region excluding their interior parts. There have been also deliberate interventions with the explicit objective of poverty reduction. Yet the depth of and vulnerability to poverty remain high in India. The instruments of intervention have been various² and many of these have been successful at varying levels of efficacy.³

Poverty is also now much lower in several parts of the country as fallout of the processes of economic growth and human development. In this context, the significance of micro, small and medium enterprise (MSME) clusters, as a vehicle for economic growth has been well established. A number of development agencies have taken keen interest in promoting MSMEs situated in clusters both in economically developing and developed countries. While many of these clusters (consisting of SME units) are industrial in nature, a sizeable number of them (especially the ones composed of micro units) are engaged in the production of artisanal and products of daily use and are located in rural and semi-urban areas.

In India, UNIDO launched a cluster development programme in 1996. Initially, a mapping study⁴ identified 138 clusters, covering a wide range of products. These clusters contributed significantly to employment, industrial production and exports⁵. However most of these clusters were found to be “underachievers”⁶, following predominantly a “low-road”⁷ growth path characterised by low production costs, low product quality and low price.

This was followed by implementation of 3 technical cooperation projects⁸, where UNIDO along with the Office of the Development Commissioner Small Scale Industries (DCSSI), Government of India, as also in partnership with a host of central/state governments and institutions thereof worked towards an agenda of “growth and competitiveness” in 24 clusters⁹. Meanwhile a number of other central and state government agencies also picked up cluster development methodology.

Acknowledging the experience of UNIDO in supporting the development of MSME clusters and in the light of potential contribution of this approach towards poverty reduction, the Swiss Agency for Development and Cooperation supported a Project¹⁰, whose objective was

¹ Prepared by Dr Shovan Ray and Dr Tamal Sarkar

² For example relief measures, rural infrastructure support, employment guarantee, and very importantly human development

³ For a review of the programmes and policies, see Radhakrishna and Ray (2006)

⁴ Gulati M. 1996. Restructuring and Modernisation of Small and Medium Enterprise Clusters in India. UNIDO (Project US/GLO/95/144), New Delhi

⁵ 138 clusters were identified by the Study. Subsequently, as the Project matured, information flowed in on presence of many more SME clusters from various parts of the country. At present, the Project has a list of 388 SME clusters, 400 handloom, 3000 handicraft and 2800 micro enterprise clusters in India. This list has potential to grow further.

⁶ Underachiever clusters have a critical mass of firms in related industries sufficient to reap the benefits of clustering, but have not developed the level of interaction and information flows necessary to truly benefit from co-location. For details see Rosenfeld, Stuart A. 1996. Overachievers – Business Clusters that Work - Prospects for Regional Development. RTS

⁷ Humphrey, J. & Schmitz, H. 1995. Principles for Promoting Clusters & Networks of SME. Institute of Development Studies. University of Sussex. U.K.

⁸ Project numbers US/GLO/95/144 (1997-2001), US/IND/97/148 (1999 – 2002) and US/IND/01/193 (2001 – 2005)

⁹ End of Project Reports of these three Projects are available at www.smeclusters.org

¹⁰ Project No. US/GLO/02/059 - Thematic Cooperation Between UNIDO and SDC in the Areas of SME Networking and Cluster Development (July 2003 to June 2006)

to gain a deeper understanding of the relationship between clusters and poverty and introduce new tools to reduce poverty in clusters more effectively.

This paper considers cluster development as a possible strategy to reduce poverty in India, where clusters already exist and poverty is widespread. Accordingly, Chapter 2 suggests clusters where there is presence of poverty and identifies those typical "principal stakeholders" who are into poverty. Chapter 3, based on UNIDO experience in implementation state the principal conditions that are necessary to address poverty through cluster development. Chapter 4 suggests "policy interventions" to promote poverty reduction through cluster development. Chapter 5 presents a list of on-going cluster development schemes that are promoting cluster development and can have impact on poverty. Chapter 6 makes an attempt to estimate the resource requirement to promote such clusters in India.

Needless to say, the experiences are limited as of now and will get more broadly based with the study of more experiences as and when project implementation by other agencies will mature. It must also be mentioned that the issues discussed are especially valid for poverty intensive clusters and not necessarily industrial clusters. To that extent very little comparisons are available and also have been drawn upon from international experiences in cluster development. Not the least any inference drawn on any scheme of any department is purely based on secondary sources and has not been officially verified.

2: Poverty in Clusters

2.1 Poverty in India

While poverty in India¹¹ is much lower now than a few decades ago, some states and regions share a heavier burden than others. Bihar, Madhya Pradesh, Orissa and Uttar Pradesh continue to have high rates of poverty with more than 30 percent head count ratio (HCR) among their populations. In West Bengal, rural poverty remains high at more than 30 percent.¹² Among these states, Orissa and Bihar are most affected, while Madhya Pradesh and Uttar Pradesh are a notch better. The situation in Rajasthan has improved of late quite considerably with only about 15 percent poor; though urban poverty remains higher at 20 percent. Uttar Pradesh (with or without Uttaranchal) is a state with large population and it is changing perceptibly with prosperity spreading to the eastern part. Thus, while the total number of poor in Uttar Pradesh remains large, they are not in the acute category compared with many others. While this is the picture at the state level, the distribution at the district and sub-district level could provide a more accurate picture of poverty hotspots in India.¹³ It is evident from these studies that poverty is concentrated in central and eastern India and in parts of interior Maharashtra and south India.

According to the new data emerging from the 61st round (2004–05) of NSS, the poverty picture is worse than what was reported in the “controversial” 55th round (1999–2000) data. Rural poverty is now reckoned at 29.2% and urban poverty at 26.0%, together making an overall of about 28.3% in India. Preliminary calculations reckon that there has been an 8 percentage point poverty reduction in both rural and urban areas in 11 years from 1993–94 to 2004–05. Decomposing the change it is found that while growth has delivered 10.9 percentage point reduction in rural areas and 12.4 percentage points in urban areas, increased inequality has taken away 2.8 and 4.3 percentage points, respectively, from those reductions in rural and urban areas respectively¹⁴.

2.2 Social, regional, occupational and gender dimensions of poverty

Poverty remains high among certain communities in India as a legacy of history. Several decades of affirmative actions have not altered this situation. In the year 2000, 7.5 percent Indians belong to Scheduled Tribes (ST), but they constituted 17.5 percent of the pool of the official poor. Similarly, the Scheduled Castes (SC) constituted about 16 percent of the population but in the pool of poverty, they formed a much higher 27 percent. Turning these data around, 44 percent of STs and 36 percent of SCs among their communities were classified as poor at the turn of the last century, while the more advanced social groups had 21 percent poor. Thus poverty is more concentrated among these deprived social groups in India. As we shall see in our empirical studies, a large proportion of the workers in the clusters belong to the deprived social groups, such as SCs and Muslims. The STs are even more marginalised but do not have the capacity to set up the enterprises for marketable products in clusters.

Among these groups there is much greater hardship in several regions and communities than the average figures above show. For instance, among STs, more than 50 percent are

¹¹ In this paper we present poverty data for the reference period ending 1999–2000. New data are emerging on the 61st round for the reference period 2004–05. This is not discussed in this paper though some major trends are indicated below.

¹² All references to the present situation are based on National Sample survey (NSS) data relating to the year 1999–2000.

¹³ For an analysis of poverty hotspots in rural India, see Chandrasekhar and Ray (2005).

¹⁴ The profile of poverty described below remains unchanged though the numbers emerging seem to indicate concentrations of poverty in the social groups, regions and occupations indicated below.

poor in Orissa, Jharkhand and M.P. (including Chattisgarh). In Assam, W. Bengal and Maharashtra, 35-50 percent of STs are poor, while in A.P., Gujarat, Karnataka and Rajasthan, 20-30 percent STs are in that category. Further, if we go to the districts of Koraput, Nawapara, Malkangiri (in Orissa), Nandurbar (in Maharashtra), or Jhabua (in M.P.) we find the proportions to be much worse – at about 80 percent or even more. But STs are so marginalised entrepreneurially, that even cluster development probably cannot deliver on that front. If there is any such scope, poverty reduction in them would be very beneficial to this community.

Thus the **poverty-clusters in India** seem to lie in the undivided states of Bihar and M.P., and in Assam, Orissa and West Bengal. They are found in abundance in the semi-arid regions of Andhra Pradesh (Telengana) and Maharashtra (Marathwada) and interior Karnataka. They are found in parts of arid Gujarat and Rajasthan, particularly among the tribal communities. Looked through the agro-ecological lens, the poverty clusters are found in 'rain fed' unirrigated parts of India in central and eastern states and more acute in the inhospitable terrains where many backward castes and tribes have made their habitats.

When we consider **occupational groups**, we find that in relatively prosperous regions of India, agricultural labour constitute the main pool of the poor in rural areas, and in urban areas it is casual labour as a group who constitute the greatest proportions. In regions of low income and productivity, poverty is widespread and touches most occupational groups. There, apart from the above cited groups, small and marginal farmers and the artisan classes are also poor. Looking at the picture from the rural perspective, 47 percent of agricultural labour and 28 percent of the self-employed constitute the poverty pool in India. By comparison, artisans constitute 12 percent and non-agricultural labour 7.6 percent.¹⁵

There is also a strong correlation of poverty with **women and socially backward class** and a general trend in poverty is that among the poor, the women are more into poverty as against men. The same is in general true for less privileged or socially backward communities. "... (In) India ...age specific mortality rate for females consistently exceeds that of men....The main culprit would seem to be the comparative neglect of female health and nutrition, especially – but not exclusively - during childhood. There is indeed considerable evidence that female children are neglected in terms of health care, hospitalisation and even feeding.....Even though the Indian case has been studied more extensively than others..... Similar evidence of relative neglect of health can be found in the other countries as well...."¹⁶. "...The incidence of poverty among females tended to be marginally higher than males in both rural and urban areas. The percentage of females living in poor households was 37 (34) per cent in rural (urban) areas in 1993-94 and 27 (25) per cent in 1999-2000 and in contrast the percentage of male persons living in poverty was 36 (32) in rural (urban) areas in 1993-94 and 26 (23) per cent in 1999-2000...."

2.3 Defining Clusters

A cluster is a geographical concentration of micro, small, medium and large firms producing the same or a similar range of products (goods or services). Units in a cluster face same or similar set of threats (e.g. product obsolescence or lack of markets) and opportunities (e.g. increasing turnover through quality up-gradation or the introduction of new products, and increasing exports through targeted marketing). The firms producing 'the product' by which a cluster is known are called principal firms or principal stakeholders of the cluster. The

¹⁵ Disaggregated data for the groups are not yet available for the more recent period.

¹⁶ Sen, Amartya, "Development as Freedom" (2000). Page 106

number of principal stakeholders vary and can be as low as 50 (in hilly areas) to as high as 5000 in locally dense clusters.

Box 2.1: Cluster Product Range

Products having same/similar value chain: In the cashew cluster, both the micro and the small units purchase raw cashew nut from traders and/or importers, process it through near similar technologies (drum roasted/boiled) and sell them to local or the Washi (Mumbai) wholesale market. Or in the leather products cluster of Ambala, where the raw material is procured from within and also outside the cluster, processed locally at Ambala and then sold locally as well as outside the cluster.

Products constituent of the same value chain: In the coir cluster of Alleppy the coir yarns spun by the spinning units are used by the weavers and the woven and further value added products are exported by the coir product exporters. Or in the leather and leather products cluster of Mandi, where the flayers feed the tanning units, which in turn feed the footwear and the leather item processing units.

The *principal firms* obtain inputs from a range of *supporting firms* through backward and forward linkages. These include raw material suppliers and manufacturers of parts and machinery; intermediary buyers like traders, exporters and import agents; and technical and financial service providers like consultants on quality, environment, design, energy, and investment. Various interest groups such as product and umbrella associations/fora contribute towards the dynamics of the cluster. All these – principal firms, support firms and service providers, technical and financial institutions and interest groups are a part of the cluster and are called *cluster stakeholders*.

The geographic spread of a cluster can vary. As a part of its natural growth, a cluster generally covers at least that big an area that enables its firms to interact. However, since a cluster is not a legal entity, its geographic boundary is scholastically determined¹⁷. Ideally, the geographic limit of a cluster should not cover too big an area such that it deters interaction and the very spirit of cluster development (see section 3 below) may lack in such situations. Thus a cluster should cover a few villages or a city and its surrounding areas or at best a few blocks of a district.

2.4 Poverty in Clusters

From the above discussion we surmise that at least a significant part of the artisan class belong to that segment of the population described as officially 'poor', though poverty is more concentrated among non-artisan occupations, particularly those engaged in agriculture in low productivity regions of India and casual labour in all occupations¹⁸. The backward regions, where productivity and non-farm incomes are low, belong mostly to central and eastern India, in the rain-fed parts with low rural infrastructure support. In these parts even the artisan classes are poor. However the choice of clusters for poverty reduction requires a few other parameters for selection.

¹⁷ For further reading please see Making Sense of Clusters: Regional Competitiveness and Economic Development, Cortright, J (2006)

¹⁸ Section 2.2 above gives a detailed account of this distribution in regions, social groups and occupations.

In identifying the regions for cluster selection, it seems very probable that artisans in these clusters are likely to be poor.¹⁹ However, it is also likely that they are not amongst the poorest, who would be typically outside the cluster enterprises in these regions. In other words the **real hotbeds of poverty in India are not likely to be the most appropriate hunting ground for cluster development**. Nevertheless, many of the beneficiaries of the eligible clusters would live in the vicinity of the poverty line even if they are not below it, and some may indeed have their heads above the watermark. On several reckonings they will be poor in the multidimensional sense of poverty, and most of those above the official 'poverty line' would be poor in the 'transient' sense even if not poor in the 'chronic' sense of poverty.

A recent strand of the literature on poverty seeks to distinguish between the concepts of chronic and transitory or transient poverty, which is useful in many situations. The chronic poor are those individuals and households who experience poverty for extended periods of time or throughout their lives. It is hypothesized that the duration, multi-dimensionality and severity of poverty build upon one another. The nature of transitory poverty is somewhat different in that the state of being poor may not be for extended periods, but occasionally, though individuals and households are vulnerable to that state in view of their low income and its fluctuating characteristics issuing from livelihood patterns. While not being poor in the strict sense of being below the defined expenditure level, etc., they would be close to that mark and touching it occasionally or periodically. For instance, a marginal farmer producing a cash crop or a small fisherman may face price or yield uncertainty and face severe income fluctuations that may lead to poverty in phases. Other examples are related to household income generated by a working couple one of whom may face livelihood uncertainties. For instance, from our studies we find that many women working in micro clusters manage to contribute to their family income such that they keep above the poverty line - and are able to send their children to school and remain healthy otherwise. They are however vulnerable to the poverty trap if they lose the livelihood option or face fluctuations in income, their earnings being low. Such a thing could also happen to low paid cluster workers through employment loss for a variety of reasons.

The sustained poverty reduction in these areas would inject dynamism and hopefully improve the living standards and livelihood opportunities to the poorer sections in them. Thus, even though cluster development in these parts may worsen inequality in the short run, the process may eventually benefit all poor in the region by spreading prosperity as clusters develop over time.²⁰

2.5 Clusters with incidence of poverty

Accordingly this paper will not consider the development of clusters of transnational and multinational corporations in technologically complex activities or where the production

¹⁹ The official poverty line values are available for the year 1999-2000, separately for rural and urban India and for different states in India. The all-India rural poverty line for that year was Rs.327.56 per capita per month. If a household is assumed to have five members, the rural poverty line was Rs.1638 per month. The corresponding poverty line for urban Indian household was Rs.2271 per month. These are averages for India, varying across states in the range of Rs.1538 in rural Tamil Nadu to Rs.1874 in rural Kerala, and from Rs.1720 in urban Assam and the northeast to Rs.2699 in urban Maharashtra. It may be noted that these lines are estimated on the basis of baskets of goods for consumption whose compositions have very probably changed since they were originally constructed; these are periodically revised for price changes at the state level. Poverty line estimates are not separately available at the cluster level, which is typically at the sub-district level. The values are indicated and may change with the new reference year assumed by NSSO

²⁰ The head count ratio (HCR) merely captures the total number below the earmarked poverty line but does not consider the depth and severity of those below the line. The concepts of 'poverty gap' and 'squared poverty gap' help us to capture these, common expressions for the more exact FGT (Foster-Greer-Thorbecke) measure.

process that are divided across nations. There is a large and growing literature on the innovation, development and maturity of products, and in that process relocation of production activities and firms in different parts of the world *a la* Vernon.²¹ A number of such clusters of firms have come up in many countries, including China, Japan, Taiwan. This paper does not also consider the information technology clusters that have appeared in many countries in the last decade, often as a result of outsourcing of products and services in the globalised environment. In India this group of clusters has developed in many locations such as Bangalore, Hyderabad, Gurgaon, and Kolkata. Those clusters are engines of growth in India as in many countries and are subjects of close scrutiny in the new international division of labour.²²

The clusters that we consider in this paper are thus the traditional ones in handlooms and handicrafts, which have grown out of specializations in certain locations producing niche products made by skilled and semi-skilled artisans and also micro unit based clusters (e.g. processed food, furniture, leather products, edible oil, etc.), which are typically labour intensive in nature, but not necessarily niche products. These households typically earn low wages but by no means very poor or destitute. Thus they are not always typically 'chronically poor' in the sense in which poverty is defined in India but could be described as 'transient poor' (as defined above).

It is commonly found that these workers with family based/acquired skills switch between their vocations as artisans and other livelihood options in agricultural and other non-farm activities to meet their shortfall in income over the annual cycle. Some of them even have to migrate in switching between livelihood options.

Box 2.2: Handloom Cluster of Chanderi

Chanderi is a small township in the state of Madhya Pradesh, in India. Handloom based weaving in Chanderi is a centuries old activity. The cluster is known for its ethnic product with high design value. In the year 2003, it had 11000 weavers working in 3000 looms. During the Participatory Poverty Assessment, the well-being analysis indicated that the "happier groups" among traders, powerful master weavers and government officials. Small master weavers and independent weavers were included within the "happy" category. The "average" was those weavers who are low paid and lead a vulnerable existence. In the "sad" category are daily workers or wage workers that have become dependent on traders or master weavers. The most vulnerable groups identified during the well-being analysis are those weavers who are unable to save for the next day. They are estimated to constitute 30-40% of the weaving community and are those in need of livelihood improvements.

Box 2.3: Cashew and Fruit Processing Cluster of Sindhudurg, Maharashtra

In the cashew and fruit-processing cluster of Sindhudurg, as a result of small and decreasing land holdings, subsistence agriculture is declining as a viable livelihood opportunity especially among small and marginal farmers²³. The predominant economic activities of the population revolve around horticultural crops, cashew processing and fisheries. Due to seasonal variations in climate and the limited spread of horticultural crops, many small and marginal farmers as well as landless people (who make up for more than 90 per cents of the agricultural labour) are involved in wage labour. It is

²¹ See Vernon (1966) on product cycle theory and its further refinement into the branch of product life cycle theory in three variants in Klepper and Simons (2005)

²² For a good literature survey and a variety of case studies from China, Japan and Taiwan in a number of sectors and types of clusters, see Sonobe and Otsuka (2006). For a classification of clusters in Latin America into *survival clusters*, *mass production clusters* and *clusters of transnational corporations*, see Altenburg and Meyer-Stamer in *World Development*, 1999, volume 27 (9), pp1693-1713.

²³ Less than 1 acre = marginal; 1-2.4 (a hectare) acres = small; 2.5 – 4.8 acres = semi medium; 4.9 (2 hectares) – 10 acres = medium; more than 10 acres = large. But this can vary from state to state.

estimated that the average family income of these small and marginal farmers (small plot owners or agricultural labourer) is in the range of Rs 15,000 to Rs 20,000 annually.

This section of the population also constitutes the principal labour force of the local horticulture processing industry. This is particularly relevant for the cashew processing industries where 95 per cent of the workers are women, many being the principal bread earner in their family. Although earning by women started as a 'complementary' income, it is increasingly becoming an essential part of the family income. Accordingly, a participative poverty assessment carried out in the cluster identified people engaged in low pay work and/or labour intensive livelihood options (e.g. wage workers, agriculture labourers, domestic workers, etc.) under the category of poor and they constitute mostly the landless labourers and the small and marginal farmers. Here again the BPL families are of particular relevance as their annual income is below the national minimum.

Box 2.4: Leather cluster of Mandi²⁴

The leather cluster of Mandi is spread over 125 villages in an estimated area of 1000 sq. km. The cluster consists of 3 principal operations, called FTC - flaying, tanning and cobbling (and of late other leather product making) with each process feeding the other. The cluster has an estimated annual turnover of Rs 1.08 crores (leather – Rs 20 lakh, footwear – 75 lakh and leather product – Rs 13 lakh) and involves 380 artisans - 220 flayers, 60 tanners and 100 cobblers. Of these around 160 tanners/flayers are members of a central tanning unit in Malori and another 10 artisans are part of another central tanning unit at Pali, together producing tanned leather worth Rs 10 lakh. Tanned leather from these units and also by the individual tanners are sold locally to cobblers and also consumed by a by-product unit at Malori (with an annual turnover of Rs 13 lakh of leather products) and also sold to local traders. The 100 cobblers produce 25000 pairs of shoes and *chappals*, valued at Rs 75 lakh per annum. However they source majority of their leather from traders. As a by product, bone crushes worth Rs 6 lakh per annum is also being produced by a central bone crushing unit set up at Malori.

There are around 6269 such clusters in India²⁵, and they belong to the informal and unorganized sector of the economy and are spread across the country. Prima facie it appears that there is considerable scope for poverty reduction through development of these clusters. The 11 states with high incidence of poverty have around 70 per cent each of micro and artisan clusters and around 40 per cent of the handloom clusters.

Table 2.1: State wise Micro, Handloom and Handicrafts Cluster in India

S No.	State	Micro Clusters (registered & unregistered)	Handicraft	Handloom
1	Bihar (undivided)	192	102	19
2	Madhya Pradesh	206	144	17
3	Assam	46	23	23
4	Orissa	88	247	10
5	West Bengal	182	282	14
6	Andhra Pradesh	197	159	35
7	Maharashtra	225	175	14
8	Karnataka	249	131	12
9	Gujrat	181	262	8
10	Rajasthan	116	94	32
11	Uttar Pradesh	368	267	64

²⁴ Source: Society for Technology and Development, Mandi (H.P.)

²⁵ Gulati and Awasthi, (2006)

12	Andaman & Nicobar.	2	14	-
13	Chandigarh	4	-	4
14	Chattisgarh	54	25	62
15	Dadra & Nagar Haveli	1	-	-
16	Daman and Diu	1	-	-
17	Delhi	28	80	6
18	Goa	3	60 (includes Daman & Diu)	1
19	Haryana	77	9	12
20	Himachal	30	82	6
21	Jammu & Kashmir	43	197	6
22	Kerala	217	86	64
23	Manipur	20	26	11
24	Meghalaya	10	16	3
25	Mizoram	7	7	7
26	Nagaland	4	15	7
27	Pondicherry	1	-	1
28	Punjab	118	19	11
29	Tamil Nadu	194	126	102
30	Tripura	2	24	4
31	Uttaranchal	30	62	31
32	Arunachal Pradesh	-	36	6
33	Lakshdweep	-	4	-
34	Sikkim	-	6	2
TOTAL		2896	2779	594

It may be noted that while the handicrafts and handloom clusters are precisely defined, the micro clusters are sub grouped into 48 broad product groups²⁶. This lacks some sort of product clarity so far as the definition of a cluster is concerned.

It may be mentioned here that besides these micro- and artisan clusters there are also a host of SSI clusters which are likely to get endangered (vulnerable) due to the natural opening up process of the Indian economy. Here, clusters with survival problems can also endanger the working class who at present may belong to non-poverty households but are vulnerable as closure of the non-competitive cluster based units can push those households towards poverty.

2.6 Poverty reduction programmes

Prosperity and well being of the poor are obtained through different processes and they can be direct and indirect. An important part can be through general prosperity 'trickling down' to the poor. Apart from the trickle down process of economic growth and human development driven prosperity²⁷, poverty reduction by programmed intervention has taken place through initiatives taken by the government and other agencies with their assistance. The results of these initiatives have been by and large positive and poverty reductions have taken place around the country over the years. Apart from relief measures, many of these programmes were of 'targeted (towards chronic poor) employment generation' types; e.g. Food for Work, SGSY and of late NREGA, etc. It has also been many a times sector neutral as often in the event of creation of basic employment opportunity, the sectoral dimension of employment generation is in general absent.

²⁶ See annex 1

²⁷ By means of capacity development and empowerment such as education, training, health and nutrition

Interestingly, there are many regions and communities, which are left out of these processes of poverty reduction altogether, especially those who fall in the category of the transient poor. The cluster development programme aims at creating additional income in an existing production (and employment thereof) situation based on market signals and necessarily covers these transient poor and also the chronic poor who get covered in those clusters. There are many such regions and communities in several parts of India, but these are mostly concentrated in central and eastern India as discussed above. Thus cluster development programmes primarily targets income generation and have a second-order effects on employment creation. When they are targeted for such poverty intensive and vulnerable clusters, can be a complementary methodology to tackle both transient and potential poverty through a sustainable market driven methodology.

2.7 Conclusion

Hence there is need for proper selection of clusters (micro, artisan and vulnerable), whereby the stakeholders are poor or are vulnerable to poverty in the absence of sustainable business growth. Hence, the parameters that are critical for identifying the clusters are important in this exercise. We need to identify those participants who can benefit from cluster development and increase their income and other attributes of well-being. We have argued that it is not possible to impact on poverty at all levels through this instrument alone and hence we may choose a set of critical parameters to identify the target groups. Once this is done, the strategy should be to choose those clusters and their participants that can benefit from their growth and sustenance and create appropriate policy support to promote business through cluster development programmes. In other words, two sets of parameters would be identified in this paper; (i) those that are critical to the success of cluster development per se, and (ii) those that help poverty reduction in the selected clusters. The following chapter deals with those issues. The policy issues that follow would be to foster those clusters and identified participants in order to meet the objectives of poverty reduction as described in Chapter 4.

3. Reducing Poverty through Cluster Development

3.1 Cluster development – concept and methodology

One of the major strands of cluster theory is based on Alfred Marshall's localised externality factor especially relevant for small producers engaged in small enterprises. Agglomeration helps generating a range of external economies that lowers costs for small producers, in terms of input supply, market access, and speedy spillover and dissemination of new knowledge and information on markets and skills. This 'incidental external economy' or 'passive cooperation', is omnipresent in a cluster. However, what makes a difference between a performing and a non-performing cluster are a series of 'conscious joint actions' or 'active cooperation' organized by different groups (formal as well as informal) of cluster stakeholders in a performing cluster.

Such 'joint actions' (a) break down 'business desirables' into 'small risk-able steps', (b) are routed through formal as well as informal networks of local stakeholders, (c) provide business gains to participating stakeholders and above all (d) create packets of social capital, i.e. institutionalize the trust (generated in this process), in the form of creation or revival of local NGOs, cooperatives, SHGs, NGOs, companies, etc. which continuously promote the cluster in the process of their own existence, by performing those and future streams of joint actions. This process transforms a cluster from 'underachiever' to 'overachiever' and keeps it ticking at that point of higher business equilibrium.

This process of cluster development²⁸ is flexible, targeted at intermediaries (networks) and demand driven, wherein the stakeholders draw up the action plan. It promotes a spirit of competitive cooperation, wherein firms cooperate where they can, which is the action plan, consisting of joint activities; and compete where they must, which are their individual action plans. The joint action plan is implemented by a cluster development executive/agent (CDE/CDA) who is a non-stakeholder²⁹ representing the implementing agency and is supported by network development agents (NDAs) of newly created/revived local governance structures and newly introduced/existing business development service providers.

However, the three-year field-level experience suggests that while the basic contours of the traditional cluster development approach³⁰ remains the same be it for industrial or poverty intensive clusters - namely focused on joint actions, targeted at intermediaries and flexible, its relevance to poverty reduction calls for substantial modifications at the operational level, especially in the areas of selection, understanding the issues, certain aspects of implementation and specialised coverage of stakeholders.

3.2 Selection

The key principle driving cluster selection, namely that products should be marketable, remains untouched. Within such subset, which may often be smaller than the entire domain of artisan and micro, great importance should be given to the following factors to ensure maximum impact on poverty:

(a) presence of low income and especially vulnerable groups within the assisted cluster

²⁸ For a detailed discussion on Methodology, see Sarkar, Tamal: Pro-Poor Cluster Development Methodology of UNIDO, MSME (2007)

²⁹ Not having any business interest in the cluster

³⁰ Which in itself is about a decade old

- (b) presence of women entrepreneur/worker
- (c) labour intensive nature of production

At first sight, it may be expected that this is always possible, that is in any cluster that is commercially viable, provided that its boundaries are stretched and therefore a larger number of poor people can be drawn into the project focus. The experience stemming from the UNIDO project suggests that this is unfortunately not often possible. When production units are dispersed over a large area, the transaction cost involved in joint activities simply becomes too high to be sustainable and therefore the cluster approach cannot deliver its potential results.

3.3 Understanding the issues

The traditional diagnostic study (aimed at understanding the production process, the market linkages of the cluster and its social capital endowment) is definitely not sufficient to understand the problems faced by the poor in a cluster. In this project, a known tool called participatory poverty appraisal (PPA) was extensively used to allow stakeholders define their indices of poverty, identify the "poverty nodes" and their distinct problem sets. Without such understanding, activities aimed for the cluster are very likely to escape the poor.

The PPA can also help to understand the profound differences among different poverty nodes with respect to their capacity to (i) get organised and (ii) sustain business cooperation. Carefully targeted capacity building is needed to address these differences and thereby enable poor people to benefit from the cluster growth process.

Finally, the traditional diagnostic study needs to be enriched by an in-depth understanding of the political and social power equations within the cluster. This is because activities deliberately aimed at poverty reduction are likely to profoundly upset the status quo and can easily escalate the degree of tensions between different groups in the cluster, with implications to the very sustainability of the cluster development project.

3.4 Growth of cluster (both poor and non-poor) stakeholders

The process of growth of cluster stakeholders can be broadly classified into three issues – promotion of (1) market, (2) productivity and competitiveness and (3) local governance structures (networks) to continuously address the above issues.

3.4.1 Market

It is important to realize that markets are critical to the growth and sustenance of clusters; without them a cluster will collapse; historical records provide many examples of such catastrophes. In the specific context of India, this lesson has been learnt in many phases in the history of cluster development and 'disappearance', and the most recent and notable examples are related to the changes that have occurred with the collapse of the Soviet Union and the opening up of the Indian economy to global competition and opportunities.³¹ Products and services originating in the clusters are meant for the market, and to gear up to the changing demands of the market is the critical component of this argument.

Marketing has emerged as possibly the most critical issue in poverty clusters. An important lesson learned from field activities, is that for sustained growth in markets, the private

³¹ Many case studies from India (in particular the one on Ludhiana cluster by Meenu Tiwari) and other countries are discussed in the Special Issue of *World Development*, 1999.

sector, that is private enterprises with own business interest in products, can play a meaningful role in generating business and trigger process improvements. What is emerging is a tripartite division of labor wherein the implementing agency creates social capital through interactions, group formation, training in capacity building, etc.; the private sector providing a strong help to consolidate the social capital while working jointly towards profits and raising awareness to the need of production improvement; and finally the support institutions providing much needed resources for production upgrading. Achieving such a scenario can do wonders for micro and artisan clusters.

The importance of marketing activities can be gauged through the case study of handloom weavers of Chanderi (in Madhya Pradesh). In handlooms a major issue is that of lack of access to appropriate market and simultaneously appropriate designs to cater to that market – one enforcing the other in a typical vicious cycle. This jinx was broken by 200 odd handloom weavers of Chanderi who came together and in a step by step approach not only through traditional tools (e.g. fair, buyer-seller meet, etc.), created their own governance structure (network) and entered into cooperation with a fresh stream of (value added) capital invested from outside the cluster that brought with it the appropriate technology, product and 'learning' by 'business doing' tools.

Case Study 3.1 Value Chain Driven Marketing

Bunkar Vikas Sansthan started off as an NGO of 7 SHGs. To start with they pursued joint marketing through standard fairs and later even specialized buyer seller meets. But the income flow was not steady enough to become an alternative revenue source as opposed to the current individual efforts, which was also full of uncertainty. Here, the link initiated with Fab India – a reputed retail chain – by the local Member of Parliament, proved to become a turning point for the cluster. In July 2004, the core buying team of Fab India visited Chanderi to explore the possibilities of bulk purchase. After initial discussions and assessment of BVS, Fab India decided to open its own office in Chanderi and also signed an MOU with BVS. BVS was given the responsibility of managing production of its SHG and through them with other SHGs in the cluster. An externally appointed CEO of BVS was entrusted with the responsibility of managing the entire business. Actual sales to Fab India are estimated at Rs 2.7 million in 2004 and Rs 4.24 million in 2005. The figure is likely to reach Rs 7 million in the year 2006. The average daily earning of the weavers increased by up to 100 per cent. While the CEO of BVS was the chief manager to start with, soon a number of weavers rose from the ranks to deal directly with Fab India.

The activities with Fab India trained the weavers in timely and quality production. Slowly BVS gathered mass and became a body of 13 SHGs having around 130 members. A new group of 6 SHGs of even poorer weavers have come up to form BVS Pranpur and are sourcing job from the original BVS. Fab India is now all set to create a private limited company with shares of weavers, banker, Fab India and select private weavers – friends of Chanderi.

Again in the cashew and fruit processing cluster of Sindhudurg, while primary processing of kokum was initiated at the SHG level, the same was treated professionally at the level of a micro enterprise for proper marketing and higher returns. While such value addition is also possible at the SHG level, immediate interests are low here to start with, while the same was higher at the micro enterprise level. Such value chain partnerships – production as per market requirement by SHGs (household units) and marketing by other micro enterprises, can give rise to marketable models with least opportunity cost of development.

In the more 'mature' (including vulnerable) clusters, maintenance of the market channels is critical and targeting products to market situations makes the difference between success and failures. In this case, changes in the market have to be constantly monitored and contract enforcement remains as important as in other clusters. Thus social capital is equally important to this category. However, for this group, horizontal joint action may assume greater importance as market intelligence have to be constantly gathered and shared

between agents. The case studies reported in the Special Issue of *World Development* (1999) underline the importance of market channels for survival when faced with the challenge of competition, particularly relevant in the context of globalization, which is not just supplying to the world market but also facing the competition from abroad. Horizontal cooperation, such as through trade and industry associations, is very useful in this situation in order to counter a variety of challenges facing the clusters.

The case of the Agra shoe cluster could throw important light from its experience as discussed in Knorringa (1999). Agra is India's most diverse and most tightly knit footwear cluster, where artisans are predominantly small producers with low technology. In 1991, some 60,000 workers, employed in around 5,000 mostly informal small-scale units, produced about 300,000 pairs of shoes per day. Agra's competitiveness was based on its cheap, abundantly available and skilled artisanal labour. This was a thriving market then, as a major hub of the footwear industry of India. With the opening up of the Indian economy, Agra faced international competition both domestically and in its export markets. The Soviet Union and its ready market collapsed at the same time the subsidy regime was being dismantled domestically. For exports they had to turn to the very tough competition in Western economy markets. Various factors came into the rescue of the cluster from possible collapse, but one of the chief factors was cooperation among its agents in response to the challenge in terms of raising the quality of products and quickening the response time. But this was not there in equal measure in all segments and channels of the cluster, and cooperation was found in varying measures in different parts, and many firms did not survive the new competition and those who survived had to change. How these changes were brought about and the role and significance of agency cooperation and those of outside forces are discussed in Knorringa (1999).

3.4.2 Productivity growth and competitiveness of cluster enterprises

An important component of competitiveness is based on generating greater value through improved productivity, quality, services (including financial services), infrastructure creation, etc. Productivity is defined as an increase in output without proportionate increase in the cost of inputs. Total factor productivity is a combination of technical improvement and a variety of other contributions to output growth that are not accounted for by factors of production. The growth in factor productivity could be influenced by the overall working environment within and outside the cluster. Some cases of cluster conditions, technical and support institutions and improvements in productivity are provided here to underline its contributions to price and market competitiveness. In particular the channels through which firm level productivity may be enhanced are:

1. Technology adoption/ change and diffusion
2. Training
3. Appropriate financing
4. Creation of critical infrastructure

3.4.2.1 Technology adoption/ change and diffusion

Technological change or diffusion is an area of prime importance, especially because the stakeholders are often cut off from the latest developments, which are important for cost cutting, reduction of wastage and also creation of appropriate products as desired by the market. These can be done through (a) benchmarking, (b) providing linkage with appropriate technical institutions, etc.

A benchmarking exercise is helpful in setting the targets and devise measures to achieve them, resulting in improved productivity. The excellent operational results of a benchmark firm in a cluster or operational practices in a benchmark cluster help others to strive for similar results as benchmarks.

Case Study 3.2: Learning through Benchmarking

For the cashew MEs of Sindhudurg, the challenge was more for suitable technology. In particular the ME cashew units were facing problems due to higher splits while cutting of cashew nut shell and yellowishness of CK post boiling. This saw decreasing yield of whole and white cashew nuts and loss in terms of price realisation. Several alternatives with regard to creation of appropriate technology were discussed. Later it was found that the split percentage of the SSI units was much lower and they bought their cutting machines from Mangalore.

A visit to Mangalore was arranged and improved technology cutters were bought from machinery manufacturer of Mangalore. Even the SHG cashew units started to slowly shift to improved quality cutters. The price difference of the locally available old cutter (Rs 1100) and the new cutter (Rs 1275, with transportation charges) was insignificant. However, at the ME level, the split percentage halved from 20 to 10 per cent. Thus the units could realise the price difference by cutting less than 100 kgs of cashew. This economics led to quick technology diffusion.

This is a low cost method of productivity improvement and is often relevant, given the closed operational structure of these clusters. However it does require investment in the form of exposure, price negotiation by technical experts and creation of mechanism for provision of after sales services.

Technical support institutions also play an important role in improving the productivity or product value of a cluster. R&D and technological innovations play a decisive role in cluster development as they make it possible for units to bring out new and improved materials, products, processes and systems which are the ultimate source of improved productivity. It has been observed that R&D centers and other research institutions set up by public and private institutions are not properly linked to SMEs in the clusters in order that they share their knowledge. A cluster provides an opportunity to provide such services at low cost and in an effective manner.

In the Sindhudurg cluster very effective results could be achieved by promoting a suitable drying technology already known to the local bamboo technology institute. Similarly, the local Malvan Polytechnic College has supplied a detailed project report to SSD division of DST for creation of appropriate low cost mobile and micro technology for harvesting, cutting, drying and pressing for kokum by SHG units in villages, so that higher utilization of raw material now getting wasted can be properly utilised.

Box 3.3: Small Changes Big Impacts

Kokum fruits are processed to create kokum *amsul*, *ghul* and *agal*. While these products have a good market, yet it was found that a lot of the Kokum is wasted as it is left unprocessed, because of low price received from the end products. When the product was inspected, it was found out that it had lot of admixture of dust, cow dung, litter etc and there was incomplete drying of rind which resulted in fungal contamination. This was the major reason for not getting higher prices and not being appreciated by consumers.

The SHGs were unified for the first time for this issue under the leadership of Gram Panchayat of Chindar village in 2005. First awareness was created among the members of SHG about the problems of contamination and admixture. Demonstration of hygienic drying was done. The demonstration consisted of use of pyramid shaped bamboo structures with nylon net troughs. The whole pyramid was also covered by black polythene. This structure proved to be very useful for drying of Kokum rind. Its capacity was 50 kg. and the concept for dryers became popular in the Chindar village.

Due to drying in enclosed system and above the ground the quality of the kokum rind improved due to less admixture and less loss of anthocyanin pigment in the rind. Local market was readily available for this 1000 kg of *amsul* processed using this technique. 16 women from 3 BPL SHGs received Rs.25000 net profit in the process within 90 days. In 2006, the same technique was used by 9 more SHG in Chindar village and it was also replicated in Aronda and Aros villages of the Sawantwadi block in the Sindhudurg district. This bamboo drier is a known technology promoted by Appropriate Rural Technology Institute (ARTI) and produced at the local level by Central Institute of Bamboo and Rattan Technology (CIBART).

Therefore, the way small firms access and imbibe process technology it is crucial to improve linkages with technical support institutions. The knowledge centres like engineering colleges, R&D centres in and around these clusters work as catalysts in these clusters. Moreover, since the size of these units are tiny to have linkage to existing best practices, leave alone in-house R&D facilities is a distant dream, technical institutions can play an important role in the development of clusters.

3.4.2.2 Training

In poverty intensive clusters, workers typically learn their jobs through apprenticeship in the household, which may not be enough to keep up with changing market conditions. Some degree of learning is achieved through information and skill spillover, but to rely on them as a system may be costly in terms of losing the market. Thus craftsmanship may require continuous up-gradation through vocational education and periodic training in technology, design, materials, and a variety of other matter pertinent to the line of activity. While some form of regular training activities already exists with some support organizations, irrespective of the nature of the trade, at times there is also need to organize specialised training as per the need of the trade, the stakeholders concerned and their targeted market.

Again, provision of training is a necessary but often not sufficient component of capacity building for the cluster stakeholders. Especially when the intervention is aimed at the most marginalized groups in the cluster. Propensity to adopt such training, as a routine activity, is very limited or, alternatively, the scope for under utilising project resources is high. Experience shows that a great deal of effort needs to be spent to synchronize the knowledge base available with experts and the needs of the stakeholders. Often, this also implies longer interventions – formal training and follow-up, before the stakeholders can actually internalize the skills required to escape poverty. Here, learning that takes place through interaction with or as per the needs of value chain partners, wherein natural follow-up takes place, is very effective and far reaching.

Case Study 3.4

In the handloom cluster of Chanderi, under the pressure of low margins, quality was not adequately addressed to keep up with market requirements. The dyes used were of poor quality and the dyeing practices were not satisfactory. As a result, colour bleeding and lack of rubbing fastness was hampering product quality. Typical yarn of large quantity was also not easily available. Important initial steps to address this process was organized with the support of reputed technical institutes. However, the process took a firm grip when the pressure came from the chain (business partner). An awareness workshop on dyeing was organised in collaboration with the support of Government of Madhya Pradesh by a reputed Institute for all stakeholders. An instruction leaflet in Hindi was also distributed. A second workshop was organised on dying practices where 50 dyers/weavers/master weavers were provided training in dyeing and appropriate usage of related scientific instruments, to ensure a decrease in their rejection rates. Yet, when Fab India gave the first bulk order of 10,000

meters of fabric (500 kgs of yarn) in four colours, availability of fast dyed and yarn became an issue. The CEO of BVS went to Coimbatore along with a weaver to do bulk ordering of cotton yarn after proper dyeing. The identified vendor agreed to supply, though colour was not fully guaranteed. The delivery mechanism took almost 50 days and the dyed yarn was supplied at Guna, 100 kms. from Chanderi. These were high cost transaction problems. It was also found that the cost of dyeing was around Rs 800,000 and the cluster has the capacity to retain this income and gainfully employ 20 persons.

The cluster did not have any professional dyer. It only had those ad hoc dyers who were doing some silk dyeing. 4 such dyers were identified and with the support of Weavers Service Centre and National Handloom Development Corporation. They were first sent to Valsad for an intensive training in dyeing technique. Later they were given hands-on-training by a service provider while actually dyeing materials for Fab India. Later with the support of BVS, who sponsored the utensils and measuring instruments, 3 part time dyers started a dye house. The dye house dyes both for BVS and also takes up independent assignment.

3.4.3.3 Provision of financial Linkages

In the poverty intensive clusters, the 'poor' (transient and absolute) are often found to be not credit worthy by banks, probably, since they are not truly involved in meaningful production/business models, as often their scale of production is low and most of them simply lacked the capacity to properly explain the viability of their business model to financial institutions. Again often their book keeping methodology is also not as per the requirements of the banks. Such situations can be handled by bringing poor household units in the form of SHGs and thereafter forming them into NGOs (of groups of SHGs) or linking them to appropriate local NGOs. At Chanderi, loan could be provided to Bunkar Vikas Sansthan which presented a business model with a reputed retail chain (Fab India). This was also the case of a group of 16 SHGs which formed an informal group – 'Sindhudnehi' in Sindhudurg and could derive a CC limit from the bank.

Box 3.5: *Sindhusnehi* Makes a New Beginning

Sixteen SHGs (15 women SHGs and 1 men SHGs) are attached to Krishi Vigyan Kendra (KVK), a local NGO. Six of them went into production in 2004 and seven more SHGs went into production in 2005. They processed 10 MT (metric tones) in the year 2004 and 14 MT in 2005³². These 16 SHGs have come together to form a federation named *Sindusheni*. *Sindhusnehi* has been linked with the Ratnagiri Sindhudurg Grameen Bank, Ramgadh. The limit was Rs 50,000 (USD 1000) in 2004 and Rs 200,000 (USD 4500) in 2005. *Sindhusnehi* has applied for a Food Product Order (FPO) certification and for a separate food processing industry work shed for common processing. KVK supports them in these efforts. *Sindhusnehi* has also improved their packaging and linked up with an ME for marketing. They also insured their members for health related issues. Even for slightly bigger units, with higher employment potential (provided there is higher capacity utilisation), lack of adequate credit can be a major bottleneck. In the cashew cluster of Sindhudurg, the highly employment intensive micro units could solve this issue by putting in place a joint liability arrangement with the bank by forming an SHG of owners of those micro units.

Box 3.6: PRERNA into Joint Loaning

In December 2004, the Konkan Ratna Cashew Processors' group converted itself to PRERNA Self Help Group (SHG). After continuous meetings of its members, the SHG listed its problems, fixed the objectives and then approached State Bank of India, (SBI), Kudal Branch with a project report for loan. SHG decided to set up a common raw material bank, common grading, packing and marketing of finished and other by-products. 7 members deposited Rs 40,000 each and after depositing Rs.

³² Production is completed yearly by July

300,000 (USD 6500) - as margin, SBI sanctioned PRERNA a loan of Rs. 2,000,000 (USD 55,000). Training was given to workers to improve their skills in cutting and grading. Although processing is completed individually at each unit, there is common buying of raw nuts, common grading, common packaging and marketing. Due to large-scale availability of nuts and other by-products and better grading, marketing has become easier and has resulted in higher prices and consequently in higher incomes. Due to finance from the banks, problem of purchase of RCN at lowest price has also been solved and each member has now enough RCN to engage his unit at full capacity. The joint effort in this venture has resulted in processing of 58 MT of RCN within one year (2005) in contrast to 16 MT in 2004. 60 persons got employed. The group has also appointed a manager for better management of its operations. It has also applied for setting up of a common facility centre.

Financial support to the cluster producers, particularly where social capital is strong could also be an important parameter for poverty reduction. This is useful, as social capital improves bankability as with micro-credit, etc. It also improves 'trust' which is crucial for contract enforcement in clusters for building marketing reputation as discussed above. In the same Agra cluster mentioned above, it would be possible to support the poor artisan households, which work through 'putting out' system and intervene to provide a line of credit. This may reduce the role of trader-moneylender and others on whom the artisan households rely for financial support. These aspects though need to be carefully analysed in order that the marketing power of the producers is enhanced by such an intervention. This is an area in which the wisdom and expertise of NABARD and similar institutions could be drawn upon.

It has been observed, however, that credit becomes a real bottleneck only during business expansion or creation of new business. If micro-credit is used exclusively for consumption purposes, there is a serious risk of locking poor people in micro-debt, which can have negative implications for their survival. The creation of sustainable business opportunities for the poor in the cluster (both in terms of linkages to viable markets and ability to produce suitable products) needs to be seen as a necessary precondition for infusion of micro-credit in a cluster.

3.4.3.4 Infrastructure

While infrastructure is often a bottleneck for development, the level of support for such infrastructure is always a matter of debate. Here one needs to follow a policy of "higher the nature of developmental aspects of the infrastructure - higher the support". It is also important that many a times, the need for such infrastructure (e.g. marketing outlet or sales go-down) can be outside the cluster. There can also be need for multiple infrastructure requirements depending on the need for various networks of stakeholders too. But what is important in this regard is the fund allocation as a part of the scheme, rather than managing such through other sources as that can be time consuming for stakeholders, who in any case are weary of long-run projects.

3.4.3 Networking and social capital

Whatever interventions in clusters get executed at the local level through a variety of combinations of local institutes and participating units - micro as well as household based. However at the core of these are the informal (not having any legal entity) and formal groups (association, SHGs, cooperatives, etc.). Equally relevant are initiatives in the form of companies formed jointly by a group of stakeholders. The relevance of the institution is linked to its job description – the more business oriented the joint action, the network structure should also be more business friendly.

Box 3.7: Creation of Governance Structure

Cashew units in the cluster had a policy level body in the form of KCMEA. However no such body existed for the fruit processing MEs. Thus select fruit processing units were taken for an exposure visit to the food-processing cluster in Pune. There they also had an interaction with a lead chamber of commerce - MCCIA. They visited the laboratory promoted by MCCIA. Soon promotion of a common laboratory became an agenda of the local units. Later they got involved into a training programme on packaging. There they realised the need for buying improved quality packing material for better shelf life. An interaction with a cost consultant was also organized. They understood that though the price of better quality products might be on the higher side, yet they could purchase them jointly and reduced cost as well as increase product shelf life. Thus they formed the Sindhudurg Zilla Phal Prakriya Utpadak Samuha (Fruit Processors' Association) in 2004. The association has since carried out several initiatives including joint purchase of packaging material (tin) and joint marketing.

Here one also sees initiatives taken by new entrants in the form of banks, Gram Panchayats (GPs), local NGOs, and value chain partners. For example in the cashew cluster of Sindhudurg, the implementation dynamics was carried out by local NGOS (training institute, KVK and Agriculture cooperatives), GPs and also by banks and consortium of MEs. In Chanderi it started off with SHGs and graduated to NGOs and now a new structure is ripening in the form of producers' company of value chain partners, including a handsome representation of shares by the 'poor' stakeholders in the proposed private limited company.

Box 3.8: Local Initiatives Rapid Success

In December 2005, NABARD and UNIDO jointly organized a workshop to share the experiences of PRERNA – an SHG of cashew processing MEs and also the in-process CHINDER village model of *Panchayat*-led SHGs. A visit to PRERNA and discussion with the MEs was also organised. Linkage support was also agreed to, with banks willing to promote such a model. The idea was found very appealing by the Manager of Ratnagiri Sindhudurg Gramin Bank (RSGB), village Poip of Malvan block. Five SHGs of BPL women from Poip and the surrounding villages were involved through a joint meeting organised by the Bank Manager. A 15-day training programme in cutting, boiling, peeling and grading was provided to 50 BPL women. An exposure visit of the members of the SHGs was organised to an export oriented cashew-processing unit and interactions with a woman cashew-processing entrepreneur brought confidence among the women to undertake their independent cashew processing activity. They were trained in book-keeping and maintenance of registers. These SHGs formed an informal group - Shri Jay Ganesh Kaju Utpadak Samuha.

During the first year (2006) of operation these 50 women processed 10 tonnes of cashew and sold them for a total value of around Rs 600,000 (USD 14,000), making an approximate profit of Rs 100,000 (USD 2,500). The entire processing was done from a rented premise, which was cramped and had scanty toilet facilities. Keeping this problem in mind and also in view of the need for a stable productive infrastructure for the future, land was identified for setting up the Project with the support of the village development officer and the Village Panchayat. The Block Development Officer of Malvan Block agreed to provide for building a work shed. Accordingly, DRDA sanctioned infrastructure support of Rs 780,000 (USD 18,000). RSGB has sanctioned loan for Rs 625,000 (USD 15,000) and also subsidy support of Rs.625000 by DRDA under Swarnjayanti Gram Swayamrojgar Yojana. (SGSY). Now the group eagerly awaits the actual disbursement of DRDA support through which they can create their own factory premises.

In the artisan/village level clusters, such networks (e.g. SHGs) have often been created in the past, often as a tool to administer support schemes in a strongly supply driven manner. Here one needs to understand that network composition may vary depending upon the targeted objective. A network aiming at joint production requires members with complementarities in product development/marketing and similar size/turnover. However, these features are not required for a thrift and credit network. Hence, the implementing agency should have a clear vision of purpose for creation of network and share the same with the stakeholders, prior to creation of networks.

3.5 Usage of service providers

For implementing the above activities (as described in section 3.4), services of BDS providers are often utilized either by (a) an NGO that organizes those activities for a group of unorganized units or a less than optimum size network³³ of micro units or (b) a matured/maturing network of micro units. NGOs managing such group/network should ideally have comparative advantages in the area of either marketing or production or organisation of tiny units. Such services can consist of creation of appropriate network or a quality expert working for quality up-gradation for a unit owned or managed by a network of units.

Box 3.9: Awareness Results in action

As the only NGO that had FPO license, after UNIDO intervention, HSSP arranged a workshop for NGOs, fruit processing MEs and SHGs for awareness about FPO licensing. It was for the first time occurred to the people that FPO is in the interest of the processor and along with licensing the FPO also guides the entrepreneur. TPACCS Chairman and SHG manager participated in the workshop. TPACCS did not have a formal minimum quality certification – Fruit Products Order (FPO) license. They were feeling the need for the same as their production was increasing and they were constrained to produce optimally and market the same in the absence of an FPO license. To understand the FPO system better, visit of an FPO officer was organised at TPACCS and interaction with SHGs attached to TPACCS and the SHG managers of TPACCS was conducted. Being satisfied with the advantages, TPACCS then applied and got FPO license. Now TPACCS send their products to Mumbai market with formal packaging.

Again it is important to continuously organise activities for the newly formed/revived networks of stakeholders. This is managed by professional support for those networks in the form of network development agents (NDAs). However, unlike in industrial clusters where stakeholders often come up during the diagnostic with relatively clear demands, stakeholders in “poverty clusters” are often much weaker and need far greater support to conceptualize a break from their daily routine but also to organize their progress towards growth. Here the NDAs at the ground level also need to be of high caliber as they are called to be thinkers and not simply doers. However, in an un-organised cluster the NDA should guide the stakeholders by (a) challenging the status quo, (b) preventing the escalation of conflict, (c) introducing appropriate systems, (d) nurturing new leaders and (e) preserving transparency. At times such NDAs also lead the networks from the front and later hand over responsibility to the network members.

Box 3.10: CEO of BVS

During the formative phase, hiring an able (qualified and experienced) consultant (supported by the Project) as the CEO of BVS proved helpful in steering the dynamics. The 7 founder SHGs created a

³³ Here a group is being defined as a conglomeration of similar units and network is being defined as a conglomeration of similar units with a purpose.

sub-committee each to take decision on production and marketing in a professional and ethical manner. The production team consisted of one member from each SHG. This team is responsible for distribution of raw material and collection of finished products. Weavers are paid weekly, as per what they produce. One elected member of each SHG is responsible for quality control. Weavers come together to pool a part of the working capital requirements for production. The marketing team consists of one weaver elected from each SHG and the CEO. They are responsible for organizing retail and institutional sales and participation in exhibitions. Executive Committee is made up of two elected weavers each from each SHG. BVS provided a higher pre-fixed wage rate to its members and sale directly to customers/retailers/outlets. Each weaver had an equal share of capital and profit entitlement was made proportional to the wage earned by a weaver, the commitment of the weaver towards the cause of BVS. It was also decided that a part of profit would be used for social and economic benefit of the Chanderi weavers.

3.6 Capability Creation

One thing is to create wealth and yet another thing to continue to generate it as also uses it productively for holistic development. Hence, there is the need to create capability among stakeholders in poverty, which supports and guides the process of income generation during the process of poverty reduction. Thus there is need to promote functional literacy, provide health improvement support, institutionalize fairer gender relations and organize the provision for uncertainties.

What has been observed is, however, that in the midst of income generating initiatives, non-income issues sometimes take a back seat. For this reason, it has been found useful to include well-specified non-income targets (e.g. with respect to education, health or gender issues) in the annual action plan and to monitor progress accordingly. However over a period of time, these different activities ought to be integrated in an action plan owned by the stakeholders. In the meantime, continued management pressure together with adequate sensitization of the cluster development agents/executives can also help re-addressing this imbalance.

3.7 Targeting the poor

In many clusters, the poorest stakeholders belong to the low social strata (as per 'caste'), or at the least belong to the relatively low social strata. For instance, in the Agra shoe clusters, producers are typically from various sub-castes of *Chamars* in the stratified Hindu caste system, whereas the merchants are from upper castes or from another religion.³⁴ Among weavers, it is frequently found that while they are from Muslim ethnic groups and from different sub-castes of the weaver caste among Hindus, the merchants are from another stratum or from other religious groups.³⁵ From the viewpoint of business oriented joint action, these clusters may often fall short of both social capitals within a group ("bonding" social capital) as well as social capital among groups – backward/deprived and forward/endowed ("bridging" social capital)³⁶. This creates problems of joint action that is so critical to the development of clusters, both 'incipient' and 'mature' clusters.

³⁴ See Knorringa (1999) for the case study of the Agra shoe cluster coping with new competition.

³⁵ See Tewari (1999) for a study of the Ludhiana woolen knitwear industry adjusting to new competition.

³⁶ Narayan (undated)

Box 3.11: Socially Backward are at the lowest end of the value chain hierarchy

In **Jalandhar** football stitching cluster out of 247 workers investigated, 190 were reported to follow Hindu religion, while 23 followed the Sikh religion. Three major religious groups, of Hindus, Sikhs and Muslims could be identified of which three quarters were Hindus. There were a few Christians too. In the past few years, the Muslim household group has increased. Another religion group called *Adharmis* was also identified but further investigation found them as a part of Hindus who had stopped abiding by strict religious strictures and practices and are mostly SCs by caste origins. Caste-wise the overwhelming majority in the villages are *Ravidas*, a scheduled caste, who are named after a stitcher saint. Data suggest that approximately 90% of all household worker population is *Ravidas*. The second dominant caste among the workers is of a backward caste whose presence is one in ten.³⁷ Thus, the worker-trader compositions in the clusters described in this paper provide a kaleidoscope of relationships, which cannot be fully described in this paper.

There are about 820 working looms and 3000 weavers spread in the four villages of handloom cluster of **Bargarh in Orissa**. The majority of the weavers belong to either Costa or Bhulia communities and have good skills. They earn about Rs. 2500/- per month, which is low. The weavers belonging to the Harijan community are semi skilled and are mainly engaged in weaving the coarse count 'Janata' varieties of cloth. Their wage earnings range from Rs. 1200/- to Rs. 1500/- per month. The entire family gets involved in the activity, and while the preparatory processes like bleaching & dyeing, opening of yarn, and winding are done by the women and children of the family, the starching, warping, weaving and tie & dye activities are done by the male members of the family.

3.8 Project duration and contribution to development fund

Given the low level of development of most poverty clusters, a 3-year project duration is far less than optimal. An ideal duration for such projects is suggested as at least 5 years. Again, the standard cluster development approach suggests a ratio of 2:1:1 towards development expenditure by the stakeholders, implementing agency and support institutions respectively. However for the clusters in the unorganized sector, an acceptable ratio may be 1:1:2 by stakeholders, implementing agency and support institutions, where the support institutions are tuned to such activities or 1:2:1, where the support institutions are either not tuned or do not have fund for supporting such activities. This ratio may get further tilted towards either the development agency or the support institutions, as a lot of expenditure often takes place for promotion of networks of poor stakeholders by high-priced resource persons in the absence of which, stakeholders do not pick up the momentum.

3.9 Project management

A Cluster Development Programme traditionally supports associations, their NDAs and BDS providers who are the principal implementers of action plan activities, prepared by the cluster stakeholders themselves. A cluster development expert (CDE), representing a neutral implementing agency, implements the process. Generally one CDE can at most cover one cluster. Sometimes a big cluster may even desire more than one CDE. The CDE needs to be of medium capacity, with at least a post graduate/professional degree and having at least 5 to 10 years' of experience in handling such micro clusters. It is also important that the CDE is attached to the cluster for the entire Project life span, as the entire process is built on

³⁷ All the material presented in the Jalandhar cluster is drawn from the report, "Corporate Social Responsibility In SGI of Jalandhar", July 2005, United Nation Industrial Development Organization, (Cluster Development programme) Conducted by Pankaj Prakash, Mudra Institute Of Communications, Shela, Ahmedabad.

mutual trust of delivery, which often gets entangled to the persons delivering and goes away with the person.

Despite the intensive involvement of CDE, experience in the field proves that there is scope for further offloading of responsibilities to ensure that outreach of the project in terms of poverty reduction is maximized, especially as trickle-down effects proved not to be particularly reliable. More specifically, the bulk of activities aimed specifically at poverty nodes (e.g. marketing, credit disbursement, infrastructure creation, etc.) ought to be sub-contracted to specialized institutions. Moreover, field level experience shows that there is a good potential to involve NGOs, albeit of a sufficiently strong nature, in the process of group formation and social capital building.

Another issue of importance is appropriate time lag in decision making. During implementation a number of proposals for support would come up naturally and trust of the CDE (and as a corollary the implementing/monitoring/donor agency) with the stakeholders (business entities) will depend on the response time of approvals for support. At times there may also be need for small changes in certain activities of the approved action plan as per ground realities identified during implementation. Here often there is need for spot decisions, for smaller activities, with formal approvals following. A second best is putting in place a system with quick turn around time, which naturally requires that a range of low (financial) value decisions be delegated at the lowest hierarchy (field) level, with still higher value decisions for the meso (regional) level; with the policy (central) level only looking after highest value (e.g. infrastructure) approvals, approval of broad action plan and constant monitoring of the system.

3.10 Conclusion

There are several lessons that we learn from scanning the various ways in which productivity gains were achieved in the cluster enterprises and later institutionalized at the cluster level. This can be organized into some wisdom and related to the theoretical literature that is relevant to this paper. The underlying points arise from the fact that the enterprise units are small and located in the cluster to share from their experiences and benefit from proximity. The requirement that they have for various factors, including technology and knowledge, is usually low and in view of their market presence in the competitive world, the ability to take risk is low. They have scarce information on the best practices in their own industry except for what they are able to see from their proximity and demonstrated to them with low stakes and high rates of success. In case of new technology and processes, indivisibility is often a handicap for small producers who cannot take advantage of scale, and thus access is limited and wastage factor high when used sub-optimally. They also face constraints for making large investments, including for highly skilled manpower, machinery and technology, and also face financial limitations due to low resources.

These are instances where sharing of resources, scale, technology, knowledge, expertise and information on best practices are advantageous to them as a group. This is where cluster development methodology contributes to organize benefit beyond the proximity induced Marshallian externality argument presented above. As mentioned above, this needs help of outside agencies and also specialized support structure. Not the least is the issues with respect to selection of appropriate clusters and specially targeting the poor within those clusters.

4. Policy Suggestions

4.1 The Perspective

The Indian economy appears to be growing at a robust 8 per cent in the recent past, as compared to 5-6 per cent in the recent decade and is predicted to achieve even a higher growth trajectory of 9-10 percent soon with a supportive policy environment. Yet, growth in various sectors of India has not been balanced and the laggard among the three major sectors has been the agriculture (primary) sector. In recent decades, agriculture has grown at about 2 percent per annum despite the green revolution, which has nearly petered out, though this sector still supports close to three fifths of the population for their livelihoods directly or indirectly. In other words, the productivity of agriculture is abysmally low and there is enormous surplus labour force lurking in rural areas looking for alternative employment.

Industrial growth in India has been commendable, but it has not absorbed labour in any significant way; it has been found that the employment elasticity of growth in industry has been very low. The services sector growth has absorbed some labour, but that has not been adequate to absorb the labour that is available from rural India. It is also not surprising that rural and agro-based industries, which absorb labour, has not shown enough dynamism to capture this labour force.

Contrast this with China, a country of comparable dimensions, which has reduced poverty HCR to less than 3% in rural China and where during the two periods 1978-89 and 1990-97 rural enterprises clocked a growth rate of over 19% and 28% respectively. In 1997 the share of rural non-farm GDP in total GDP was 28%. It is now reckoned to be about 30% of total GDP, which is very impressive. Rural enterprises (called town and village enterprises, TVE) thus formed an important source of growth in China and contributed to employment generation and poverty reduction in a significant way. There is nothing comparable to this in the growth story for India.

Thus the impressive emerging growth story for India is not creating enough rural employment and the trickling down process is slow and decelerating. Hence the burden of job creation and poverty reduction would be on making rural based industries more dynamic.

Given the presence of micro units in clusters, it is here that the cluster policy becomes extremely relevant for poverty reduction. Though it will primarily target the transient poor as they are the people with some existing entrepreneurship and are in cluster, it will also cover the chronic poor as long as they also belong to such clusters. Thus, given the high presence of clusters in poverty hot spot districts, as shown in case of Orissa, chances are high that developing micro and artisanal cluster will impact on poverty nodes – transient and also chronic.

4.2 Policy Suggestions

4.2.1 Creation of database

Targeting poverty reduction through cluster development calls for addressing the needs of an estimated 6000 clusters. While the handloom and handicrafts clusters are well defined, micro clusters need to be further documented with respect to their products, marketability and dispersion. Micro units dispersed over a wide area might not lead to sustainable cluster development due to high transaction costs of joint actions.

4.2.2 Selection of Cluster

Priority may be given in addressing those clusters that are situated in the undivided states of Bihar and M.P., and in Assam, Orissa and West Bengal. They are also in abundance in the semi-arid regions of Andhra Pradesh (Telengana) and Maharashtra (Marathwada) and interior Karnataka. They are found in parts of arid Gujarat and Rajasthan, particularly among the tribal communities. Looked through the agro-ecological lens, the poverty clusters are found in 'rainfed' unirrigated parts of India in central and eastern states and more acute in the inhospitable terrains where many backward castes and tribes have made their habitats. Here one need to address those clusters which have a future in so far as their product range is concerned and the products are labour intensive. Within those clusters, highest importance needs to be given to the presence of certain social groups such as higher presence of SCs, STs and Muslim communities and those having higher involvement of women as entrepreneurs/workers.

4.2.3 Promoting Clusters

The areas that require special attention are promoting marketing opportunities, enhancing productivity and competitiveness, e.g. through benchmarking/demonstration of technological processes, training, linkages with support institutions, shared use of business development services, appropriate financing, creation of critical infrastructure and creation of local governance framework for groups of local stakeholders (e.g. SHGs, NGOs of SHGs, association, producers' company, any other corporate entity, etc.) for continuous business promotion. It must also be made explicit, that the areas of support are indicative and not exhaustive. Few issues however need special interest.

4.2.3.1 Role of private sector

In areas related to marketing and training, higher importance should be given to private sector participation. Training and one-off market linkages (e.g. exposure, fair participation, etc., which are otherwise important to create initial vision and demand of local stakeholders) are often incomplete with structured support and needs prolonged business driven learning which a private sector stakeholder, e.g. a buyer for a group of local stakeholders can only provide. Hence, the training component of such learning process needs to be supported through actual implementation by such private sector players (value chain partners). During this process creation of suitable and mutually agreed joint legal structures of large private sector stakeholder and groups of local stakeholders also needs to be facilitated.

4.2.3.3 Diagnosis

During implementation, stress should be given to cover the relatively deprived stakeholders – caste as well as gender wise. While their views need to be noted through a diagnostic study and PPA exercise, the ratio of their coverage should be higher than that of the overall coverage ratio.

4.2.3.4 Linkage with support institutions

While the cluster development agency is backed by donor (programme) fund for development, yet they must link with support from other local support agencies – not only for (a) leverage, but also for (b) overall programme compatibility at the local level, (c) creation of contact of the stakeholders with local support agencies and (d) spread the objectives and techniques of cluster development to those agencies.

4.2.3.5 Usage of service providers

As described below, the implementing agency is an intermediate conduit for development and should maximise creation of local capacity by involving BDS providers and NDAs.

4.2.4 Support value and duration

The period of support also needs to be longer. In general an ideal support system should be for a period of 5 years with an average (for all activities) overall contribution to the tune of 50 per cent of the development expenditure. 25 per cent should be mobilized by the implementation/managing unit (see below) through other available support schemes and 25 per cent should be mobilized from the participating stakeholders. The extent of support should be flexible (as per demand) and needs to be naturally validated by contribution of local stakeholders. Here the guideline should be - higher the support, higher the developmental nature of the activity, be it for soft or hard intervention. Going by the same logic, contribution by not privileged stakeholder group can be pegged at a relatively lower value.

4.2.5 Capability building

While income generation will lead to growth of stakeholders, there will often be need for providing various capability creation training and handholding related to working literacy, gender empowerment and health. Funds should be allocated to hire such support systems for “niche value outsourcing” from suitable institution.

4.2.6 Management of Implementation at cluster and policy level

Promotion of appropriate joint activities, inclusion of the poorest and their capacity building, etc. require constant, continuous and high value inputs. Experience shows that this process requires involvement of at least one full time knowledgeable person (more for larger clusters) – the cluster development executives (CDE) to manage implementation in a cluster. Besides, there is need for implementing agencies (of the CDE) for providing handholding and institutional support. Both the CDE and the implementing agency requires training and monitoring support from specialised agencies. There will also be requirement of macro management of a country-based programme by an experienced agency.

4.3 Resource requirement

It is difficult to gauge the resource requirement of such development efforts, particularly when apart from capacity building creation of cluster related infrastructure is also involved. However experience suggests that basic capacity creation needs can have a budget of Rs 50 to Rs 100 lakh for a period of 5 years. With support of at least around 20 to 40 per cent coming from local stakeholders (with lower percentage support coming for smaller clusters) and other support institutions, this will warrant a budget of around Rs 40 to Rs 60 lakh of development fund for a cluster. In addition one can safely add a budget of Rs 40 lakh that includes cost of CDE (Rs 15 lakh), implementing agency (Rs 10 lakh), and training and monitoring agency (Rs 15 lakh). This makes a total of Rs 80 lakh to Rs 100 lakh per cluster. If we assume that various cluster related infrastructure will be to the tune of Rs 1 to Rs 2 crore on an average and assuming that an amount of Rs 20 to Rs 50 lakh could be availed from other sources (e.g. state government, other development agencies, stakeholders, etc.) one can safely add a budget of Rs 80 lakh to Rs 150 lakh per cluster on this count.

Thus it is estimated that one needs to allocate Rs 1.3 to Rs 2.5 crores per cluster. Hence on an average, one can take a figure of Rs 2 crores per cluster. This implies that if the nation targets to work out the cluster development methodology in for the country we target to work out cluster development for 500 clusters in the next 5 years, a budget of Rs 1000 crores will be warranted.

This, however, does not take into account loan requirements, which is assumed from the normal banking/micro finance system. This also does not take care of continuous (not such project based needs, which is taken care of as part of the development fund) capability (literacy, health, gender) enhancement fund, which is also assumed to be sourced through regular sources.

It may be mentioned here that, on a first impression, a few Ministries/Departments of the Central Government have already embarked on cluster development initiatives. A broad description of these schemes and a broad schematic requirement for this purpose is outlined in Annex 1.

4.4 Beyond Cluster Development

In our quest for poverty reduction we may venture into backward regions and districts where education and skill endowments may be limited. Hence we may need to provide added support to such areas in setting up capacity for their development. For instance, an area may need support through setting up of an industrial training Institute or sending the potential workers to such institutions or apprenticeships in successful and mature clusters. This may turn out to be a crucial gap in many poverty clusters in the country, which are otherwise amenable to poverty reduction by helpful interventions.

Notwithstanding all the above, it should be added that the government's responsibility for development of infrastructure remains enormous, particularly with respect to rural connectivity. It has been found that the contributions of such investments by government in poverty reduction have been very significant, and perhaps by far the most important.³⁸ Needless to add, these infrastructure investments would provide a quantum leap to the marketing capacity and information flow to the clusters, which they lack otherwise. Development of human development skills are also among the general support these clusters would do very well to draw upon.

³⁸ See Fan, Hazell and Thorat (1999) for evidence on India and Fan, Zhang and Zhang (2002) for China. See also Thorat and Fan (2007) for a recent account of the issues involved.

Schemes on Cluster Development

The above chapters have created the basis and provided suitable policy suggestions for cluster development approach. Objective of this chapter is to:

1. Suggest typology of activities that a Scheme promoting such cluster development approach should cover
2. Introduce cluster development schemes (that have direct poverty impact) in operation along with their coverage

A1.1 Activity typologies

As identified in Chapter 2 above, the three major issues that deserve programme support for promotion of cluster related issues include (a) marketing, (b) productivity and competitiveness and (c) creation of local networks to continuously address challenges in these areas, in a cluster. Again, a number of case studies from UNIDO Poverty Project³⁹ as well as past UNIDO experiences⁴⁰ suggest that these broad objectives can be promoted through the following approaches:

- (a) Benchmarking: Many a times, learning takes place through visits, discussions and understanding of successful (benchmark) models. Here, support is required for locating such models, creating appropriate linkage to facilitate detailed (free and frank) discussion, organisation of visit, and understanding and also follow-up discussions to organise similar initiatives if applicable.
- (b) Promotion of regular (known) activities: The organisations that have either gone for or are suitable to go for cluster development, are in most cases, working in the area of development for years. Thus they already have in place various schemes/programmes, which are already in place to promote joint activities to achieve the above objectives.
- (c) Promotion of specialised activities: These are joint activities, which are specially designed based on ground conditions. These depend on a variety of factors including e.g. current level of need, trust among a group of stakeholders, presence of suitable local systems (to organise the activity), nature of stakeholders, etc. These are important interventions and adequate flexibility on this account can substantially boost a programme.
- (d) Infrastructure creation/promotion: While a cluster is expected to have its basic infrastructure⁴¹ (road, electricity, water) in place, creation of critical infrastructure is a must. Such resources flow comparatively easily if available schematically. Else the process of organizing such support can be lengthy and can test the patience of stakeholders who have just started getting a feel of joint action.
- (e) Linkage with value chain partners: Successful clusters breed specialization. The process of attaining specialization is organic (hence time consuming), costly and above all comes only when appropriately targeted. Alternately the development process must be on a constant look out for providing linkage to appropriate value chain partners. Thereafter the process of learning becomes the necessity of the chain partners both from above (providing knowledge) and from below (gaining knowledge), thereby moving towards specialization.

³⁹ The UNIDO Poverty Project – “Thematic Cooperation Between UNIDO and SDC in the Areas of SME Networking and Cluster Develop (US/GLO/02/059)” was an action research project for understanding how to reduce poverty of stakeholders in a cluster.

⁴⁰ See End of Project Reports of US/GLO/02/059, US/IND/97/148 and US/IND/01/193 in www.smeclusters.org

⁴¹ At times a cluster may lack even a basic infrastructure. Here need for linkage creation with appropriate support organisation is a must.

Table A1.1 details the typology of activities by combining the parameters and the critical interventions by which these are achieved. Table A1.2 gives a list of comprehensive, though not exhaustive list of activities that falls in these 15 typologies of activities.

Table A1.1: Typology of Activities

		Marketing	Productivity and Competitiveness	Sustainable Local ORganisations
		M	P	S
Benchmarking	B	MB	PB	SB
Regular activities	R	MR	PR	SR
Special activities	S	MS	PS	SS
Infrastructure	I	MI	PI	SI
Linkage with value chain partners	L	ML	PL	SL

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