

NOTES SESSION 6

SELECTION OF CLUSTERS

6.1 Why select?

The cost of launching a cluster development project can be substantial, especially in the least performing clusters, and the human and financial resources required to prepare and implement an action plan, to monitor the process of cluster development and to institutionalize the lessons of implementation are frequently scarce. An organization should therefore use its resources economically, aiming at:

- (a) *Generating a visible impact at the cluster level*: It helps to focus on SME clusters that play an important role in the local economy because of their size or market potential. Successful intervention in such clusters will have a highly visible impact and will readily demonstrate the potential and appropriateness of the approach.
- (b) *Maximizing the scope for learning*: Implementing agencies that are capable of handling more than a cluster at a time should select a portfolio of different clusters (e.g. handicraft vs. industrial, export vs. domestic-oriented;), so that implementation can generate wide-ranging experiences. (There is a limit to the extent to which scale effects can be created by applying lessons to clusters of the same nature, because of their typical local conditions).
- (c) *Maximizing spillover effects*: The more (potential) linkages exist between industries, the greater is the potential development impact on the local economy.

6.2 Steps for cluster selection

Selection of clusters generally includes the following steps:

- 1) Identification of clusters in a country;
- 2) Creation of country cluster table and map;
- 3) Preliminary selection and shortlist of clusters;
- 4) Formulation of final selection criteria;
- 5) Collection of primary data;
- 6) Final selection of cluster(s)

6.1.1 Identification of clusters

A broad guideline for selecting potential clusters would contain elements such as location, product(s), vertical or horizontal networks (see Session 3), major growth factor, etc. Where a good database exists and where previous work has been undertaken in clusters, the selection process is fairly simple. Since cluster development is a relatively new approach in the field of SME development, an inventory of clusters in the country with the information required for proper cluster selection is often not available.

Clusters can be identified through secondary sources combined with expert opinion.

Secondary sources of information

In countries like Italy and the United Kingdom (UK), SME clusters have been defined using statistical parameters such as employment shares in particular industries in particular areas. In the UK such data – which are strictly speaking only indices of concentration, and say nothing about successful clusters or cluster potential - were complemented through primary data on (a) the stage of cluster development (embryonic/established/mature); (b) depth (variety of cluster stakeholders) (c) dynamics (growing or declining) and (d) economic significance (regional/national or international). In addition to statistics, development plans, policy documents, etc. can be used.

One major problem of this approach is that comprehensive data on the proposed parameters are not available in many countries. Moreover, the statistical approach is very sensitive to the parameters used: the same locality would show up as a cluster using one set of census data but fail to do so using a different set. Also, the follow-up work undertaken in the UK often indicates that people working in the presumed cluster or leaving it are entirely unaware of its existence. This points to a major defect of this approach: it does not pick up evidence on the extent and frequency of cooperation among stakeholders. Policy documents in most countries likewise do not pay much attention to interrelations among firms yet. Finally, this type of information is always a few years out of date. Secondary material should therefore be combined with the following approach.

Case study or expert opinion approach

In this approach, a team of experts, who are familiar with the SMEs of the region/country, or an agency working in the field of SME development is entrusted with the task of cluster identification. SME support institutions can play a useful role in assisting these teams.

The major guidelines for data collection at this stage are to (a) identify clusters with their places of major concentration and broad product ranges, and (b) get some minimum qualitative information

on its type (natural/induced), nature (vertical/horizontal/large unit centred), major growth facilitating factor (technology/product/export) and key problem(s).

Many data can generally be collected from secondary sources like annual economic plans, industrial policy documents, industry review journals, or reports published by development organizations. Discussions with knowledgeable people from development organizations or SME support institutions can help to check data, remove overlaps and fill in gaps. It must be kept in mind that information collection is a cumulative process, which requires time to lead to focused results.

This approach still may not answer some questions. Given the fact that all stakeholders in the cluster should be able to frequently interact on a face-to-face basis – what sort of contact frequency determines the geographical "reach" of a cluster? Is there a minimum number of firms below which we cannot speak of a cluster?

6.1.2 Country cluster table and map

The data of clusters can be plotted on map of a country, as shown in the Annex. A cluster table can also be used. It provides details on each cluster, based on specific criteria (Table 6.1).

Table 6.1: Country cluster table

S.No	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Drugs & Pharmaceutical	Ahmedabad	N A	N	N	Y	H Z	M	M	H	Mkt	Y	Quality
2	Textile Hand Block Printing	Sanganer-Bagru Belt	N A	Y	N	N	H Z	L	M	H	Mkt	N	Marketing
3	Hosiery	Tirupur	N A	N	N	Y	H Z	M	M	H	Mkt	N	Infrastructure
4	Machine Tool	Bangalore	IN	N	N	Y	L	M	M	H	Mkt	Y	Marketing

Explanation of Columns 1to 13

- | | |
|--------------------------------------|-----------------------------------------------------------------|
| 1. Name of Cluster | 7. Large unit Centred (L)/Vertical (V)/Horizontal (HZ)/both (B) |
| 2. Location in India | 8. Degree of Product Specialisation |
| 3. Natural (NA)/Induced (IN) cluster | 9. Need for Technology Upgradation |

- | | |
|---------------------------------------------------------|-----------------------------------------------------------------------------|
| 4. Whether the product belongs to traditional art/craft | 10. Export Potential |
| 5. Is the product a traditional consumer good | 11. Market based (Mkt.)/Resource based (R)/infrastructure based (I) cluster |
| 6. Modern SME | 12. Competition with Large Units |
| | 13. One Major Problem |

(Note: Y=Yes, N=No, H=High, M=Medium, L=Low)

6.1.3 Shortlist of clusters

Using the above tools, a preliminary shortlist of clusters can be made. The shortlist will differ according to development priorities. A regional agency will concentrate on a cluster or the clusters in its territory. A sectoral/functional specialized agency will select similar clusters in different regions. An agency with no regional or sectoral bias can select a mix of clusters distributed over regions and products, if it has the capacity to handle more than one cluster, and if there is added value (in terms of cumulative development effects) in assisting a mix of clusters.

6.1.4 Formulation of final selection criteria

The set of short listed clusters is the basis for the selection of the cluster(s) to be supported. The following criteria can help the implementing agency to make the final selection:

Importance of cluster(s)

Clusters with a great number of small-scale firms, clusters that absorb a significant share of the local workforce or that have high export potential have a great potential impact. The location of the cluster (urban, semi-urban or rural) is also an important element if the responsible institution has a specific development mandate/competence, such as rural development. Choosing one of a number of similar clusters enhances the chance of replicability (although, as pointed out above, differences in local conditions limit replicability). Linkages of a cluster with other sectors increase the likelihood that its development impact on the overall (local) economy will be greater. More and more, strategies also stress the importance of sustainability in all respects: reducing social and/or environmental costs or – better – building up clusters with a positive social impact (for example, clusters which increase demand for skilled labour) and environmental impact (for example, the prefab "eco-housing" cluster in Lower Austria).

Viability

Cluster selection should focus on industrial sectors with solid growth prospects; effective government policies for promising industries can be an additional factor in selecting clusters.

Clusters serving higher-end markets can generally be considered to have the best long-term growth prospects, but low education levels and competition among enterprises which focuses on prices rather than product quality can be obstacles to the development of such clusters.

Promotability

The promotability of a cluster is different from its viability. It refers to the presence of institutions or associations in the cluster that enjoy the trust of the entrepreneurs, capable leadership, adequate business infrastructure and a conducive policy framework. Such clusters provide the best framework conditions for development and creating leadership by local stakeholders.

Complementarity

Optimal use of resources is also promoted by exploiting synergies. For example, the effectiveness of a technical upgrading programme can be greatly enhanced if complemented with a marketing related programme. Isolated activities by different institutions at different periods of time tend to lead to poor results.

6.1.5 Information needed for cluster selection

Whether these criteria are met can be ascertained by using the following checklist.

Table 6.2: Primary data required for cluster selection

1	Does the cluster have a minimum critical mass ? <ul style="list-style-type: none"> • Number of firms, firm distribution (large/medium/small) • Estimated turnover of broad groups • Contribution to employment (men and women) and income • Contribution to exports • Importance of product in the chain • Sales trends • Seasonal/mainstay activities
2	Location of cluster <ul style="list-style-type: none"> • Within a city/village/linkage with nearby cities/villages (if executing agency has a specific rural/urban mandate) • Presence of support firms and service providers
3	Replicability <ul style="list-style-type: none"> • Size of the industry, number of similar clusters • Linkage with other clusters at that location
4	Social and environmental conditions <ul style="list-style-type: none"> • Sketchy profile of typical owners/managers, and workers and of their economic status • Average yearly earnings (man/woman) of workers/unit owners • Drudgery in activity, if any

	<ul style="list-style-type: none"> • Pollution related issues • Legal issue related to quality
5.	Viability <ul style="list-style-type: none"> • What are the prospects of upgrading production technology? • Does the product has a future in current national/global settings? • Main markets (geographical, consumer segments) • Major threats • Stage of product in the product life cycle • Value chain position
6	Promotability <ul style="list-style-type: none"> • Have firms undertaken product upgrading or diversification, explored new markets, made technological innovations, invested significantly in or updated equipment, etc. • Does the birth rate of firms substantially exceed to closure rate? • How sensitive are firms to major issues that are bothering them?
7.	Complementarity <ul style="list-style-type: none"> • Potential for complementing other development • Scope for value added of a support project

This information can be collected in the following steps:

- 1) Get secondary data on the industry trend in general.
- 2) Ask for a broad write-up on the cluster and on-going SME support activities from appropriate local agency or a knowledgeable person with a connection to the cluster stakeholders.
- 3) Prepare a fact sheet on the lines of Table 6.2 and identify gaps.
- 4) Request the same agency to organize some meetings with some principal stakeholders in the cluster. Meet them in groups if possible.
- 5) Request the same or another suitable agency to organize one/two factory visits. Focus on the production process.
- 6) Organize a two-day visit to the cluster. Meet the agency representative, if possible the person who interacts with the stakeholders of the cluster. Then visit two dissimilar units (SME and large or local and export-oriented firm, etc.), discuss the value chain and production/finance/market related problems and try to gauge the aspirations of the firms. Meet association executives and other principal stakeholders. Have an open forum discussion with the principal firms.
- 7) Share the programme objective, findings and probable future actions with the cluster stakeholders in a concluding discussion.

6.1.6 Final selection of clusters

Different values are given to each criterion on the basis of the information gathered. The scoring system for each criterion proposed below can be adapted to the nature of the cluster and the

priorities of the implementing agency. However, it is suggested that criterion 1 (minimum critical mass) and criterion 5 (market potential) should jointly not dominate the score. To facilitate the final selection of (a) cluster(s), a table with the weights and the scores of the different clusters can be made. The conclusion from Table 6.3 would be that cluster X is the most promising one for intervention.

Table 6.3: Final selection table

	Weight	Score			Weighted score		
		X	Y	Z	X	Y	Z
Existing contribution to the local economy	10	5	4	6	0.5	0.4	0.6
Location of cluster	10	4	8	5	0.4	0.8	0.5
Outreach	20	6	4	6	1.2	0.8	1.2
Socio-environmental condition	0	2	8	4	0	0	0
Market potential	40	8	3	5	3.2	1.2	2.0
Promotability	15	4	5	5	0.6	0.8	0.8
Subsidiarity	5	5	6	3	0.3	0.3	0.2
Total weighted score	100				6.2	4.3	5.3

Note: W => Weight; W. Score => Weighted Score; X, Y and Z are the three clusters. The scores vary from 1 to 10 and the total weight is 100.

Assuming that the organizational hierarchy of the implementing agency can be divided into top, middle and implementation levels, the following role matrix is suggested for the agency:

Table 13.4 Role matrix

	Top management	Middle management	Implementation level
Creation of macro guidelines			
Collection of secondary data			
Creation of country cluster map and country cluster table			
Initial selection of clusters			
Creating final selection criteria			
Collection of primary data			
Final selection			

Annex

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