Refresher Training Program on
Cluster Development in Agriculture
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ni-msme

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1. CLUSTERS IN DEVELOPED AND DEVELOPING ECONOMIES

A cluster is generally defined as a geographically bounded concentration of similar, related or complementary businesses with shared infrastructure, markets and services and faced with common opportunities and threats. The enterprises produce and sell a range of related and complementary products and services. Clusters mainly consist of MSMEs but often also include some large enterprises. Micro enterprises in rural areas face competition. Development of clusters helps in deriving benefits of economies of scale in procurement of raw materials, production and post-production operations.

It is proved all over the world that MSME sector can boost its competitiveness through networking and this process is easier and more sustainable if the enterprises work very closely with one another in clusters. Also they can build their competitive strength through cost reduction, up-gradation in value chain and utilization of collective economies of scale when they co-operate with each other and build linkages with private or/ and public service providers. The application of cluster approach has given very good results for sustainable development of MSME sector in both developed and developing nations. With firms located in close proximity to each other there is the opportunity to reap the benefits arising out of joint efforts and shared vision of the future. Efforts made collectively viewing the cluster as a whole can give the cluster a competitive edge. An example of a cluster can be localized knitwear and garment industry comprising knitting firms, cloth-finishing, dyeing and printing units, garment producers, merchant buyers and others located within a small geographical area.

The clustering phenomenon has contributed to competitiveness in specific industries and sectors in countries across the globe. The success of localised groups of firms in the same or related industries or 'regional clusters' viz. in nations, regions or even cities has been elucidated by Porter (1990), Enright (1996, 1998), Schmitz (1998, 2000), Nadvi & Scmitz (1994, 1998), Humphrey and Schmitz (1995), etc. These literature and many others highlight that 'regional clustering is found in virtually every advanced economy and developing nations as well.' (Humphrey and Schmitz: 1995). Enright (1998) provides examples of the information processing cluster at Sydney,

the credit card processing cluster at South Dakota, the high tech enterprises at Silicon Valley, software services at Bangalore and the data entry cluster at Manila.

1.1. Significance of Clusters in Developed Economies

Recognition of the significance of industrial cluster in developed economies is not new. Alfred Marshall, noted economist has commented (1880) on the gains of clustering to enterprises in the textile and metalworking regions of England and Germany (Humphrey and Schmitz: 1996). More recently the observations on "Clusters and Competition" by Porter (1990) has also extensively considered the contributions of clusters in the competitive advantages of developed nations.

Italian SMEs have excelled in exports of high quality consumer goods, fashion (textile and leather) products, and capital goods. This has been made possible by the small firms "…not as individual entities, but as a part of groups of firms that together are able to create what they would not be able to create as single firms. Such groups of firms were found in geographical concentrations and are called industrial districts or clusters…." The Italian clusters of Prato (Woolen textiles), Trevisio (Knitwear), Reggio Emilia (agricultural machinery) and Bologna (automatic machines) are internationally recognized. Around 199 industrial clusters of Italy comprises of 42.5% of its manufacturing employment. In Sweden, over 50 per cent of total export is contributed by industry clusters in transportation, forest products and metals. Tuttlingen (Surgical instruments), Munich (Automobiles) and Frankfurt (Chemicals) are some of the famous clusters of Germany. A highly advanced economy like USA is internationally known for the entertainment cluster of Hollywood, finance cluster of New York, furniture cluster of High Point, Naorth Carolina, etc.

1.2. Significance of Clusters in Developing Economies

Nadvi and Schmitz (1994) observe that sector specific and geographically bounded clusters are frequent features of SSE manufacturing in developing countries. One of Pakistan's examples of export success has been the Sialkot stainless steel surgical instrument cluster. This cluster, targets the United States and Europe as markets. The Pakistani clusters of electrical fans (Gujarat) and farm machinery (Daska) are also well known.

Internationally, Brazil is a leader in leather shoe exports. Its export oriented shoe manufacturing sector is concentrated in two distinct locations, Franca and the Sinos Valley specializing in men's and women's shoe. The combination of historical skill in shoe making, the wide range of local specialized suppliers of inputs and services, and the attention of exporters lent the Sinos Valley shoe cluster export competitiveness.

The roof tiles manufacturing clusters in Central Java, Indonesia and the carpenting and metal working clusters of Ghana are also examples of sectorally specialised clusters. Mexico's footwear industry is also clustered around, Leon and Guadalajara. Both have an artisanal history of shoe making and today account for most of Mexican shoe produce. The Peruvian shoe industry also consists of about a thousand small and micro firms manufacturing footwear and tanneries clustered around Trujillo.

Other examples of clusters in Latin America are the metal working cluster in Tegucigalpa in the Honduras, the handicraft hammock and ceramic production cluster in Masaya in Nicaragua, and the apparel cluster in Jamaica.

1.3. Significance of Clusters in India

In India, regionally concentrated industry and specialized clusters of small firms produce hand block printed textiles in Jaipur, locks at Aligarh, machine tools at Batala, leather footwear at Agra and Kanpur, power looms at Bhiwandi, roofing tiles at Morvi, diesel engines at Phagwara, Rajkot and Coimbatore, electronics at Noida, hosiery at Tiruppur, coir at Alleppey, brass parts at Jamnagar and diamond polishing in Surat.

Size and heterogeneity among the clusters in India vary significantly from cluster to cluster. The concentration of clusters is the highest in the western part of the country, followed by the northern region. The southern and the eastern region are quite far behind

The five top product groups in the manufacturing sector that contribute the maximum to exports are gems & jewelry, textiles (excluding handicrafts), Ready Made Garments, leather & leather products, handicrafts etc. It is in these five products that small and medium sector has shown its strong presence and the specialization that has developed in each of these areas has led to the formation of clusters. 'Gems & Jewelry' exports are largely contributed from Surat, which is the biggest cluster in this area. There are similar other clusters in Tiruchirapalli and Jaipur that contribute a part of the exports in this product group. It may be estimated that almost all the exports in this category are generated from the above-mentioned clusters.

In textiles, there are major clusters of Panipat, Sanganer, Palli, Jodhpur, Jetpur, Surat, Mysore, Sambhalpur, Bhiwandi and Bhilwara which together contribute largely to the exports. It may be difficult to quantify their contribution but a rough estimate would reflect that about two thirds of the exports are from these clusters. Ready-made garments is an exclusive preserve of small scale industry and most of its exports are generated from the clusters that are based in Ahmedabad, Bangalore, Delhi and Mumbai. The hosiery based exports are produced mainly in the clusters of Tirupur, Ludhiana, Calcutta and Delhi. In the cotton hosiery, Tirupur alone contributes 80% of the country's exports. So all the exports in ready-made garments can be estimated to have been produced in these clusters.

'Leather and leather garments' is another major export earner which is mainly concentrated in Madras, Kanpur, Agra and Howrah. Handicrafts as a product group is the preserve of small scale units which have developed sectoral specialization in selected towns e.g. for brassware in Moradabad, handmade paper in Jaipur, hand made filigree in Cuttack and textile based handicrafts in Pipli of Orissa.

1.4. Cluster Development Initiatives in India:

MSME clustering is common in many developed countries such as Italy, Germany, the USA, and Japan. Evidence on clusters in Latin America, Asia, and to a lesser extent in Africa, is also available. Since 1993, UNIDO, through its Private Sector Development Branch, has developed an approach to help government and the private sector to co-operate in the design and implementation of programmes to promote the organization and development of clusters and networks of MSMEs. The

programme drew lessons from the experience of successful clusters and it has implemented them through technical cooperation projects in various developing countries. Some of the countries where this approach has been introduced are India, Indonesia, Malaysia, Mexico, Nicaragua, Honduras, Jamaica, Bolivia, Madagascar, Morocco and Tunisia. The concept was introduced in India in the Ninth Plan with the assistance of UNIDO. The Abid Hussain 'Expert Committee on Small Enterprises' constituted in 1996 by the Government of India advocated cluster-support policies as the centerpiece of small enterprise development. Interestingly , the cluster development process is also being discussed or tested out for its impact on various thematic issues including poverty reduction, corporate social responsibility, entrepreneurship, human resources development, livelihood financing etc.

Government of India has taken up cluster development methodology a decade ago by observing the success of MSME sector through cluster strategy at global level to support and encourage micro and small enterprises. United Nations Industrial Development Organization (UNIDO) initiated implementation of cluster approach in industrial clusters with the support of the Ministry of MSME under Small Industry Cluster development Programme (renamed as Micro & Small Enterprise Cluster Development Programme). This approach was later adopted by many organizations / institutions such as State Bank Of India, National Small Industries Corporation, Development commissioner (Handlooms), Development Commissioner (Handicrafts), Small Industries Development Bank of India, National Bank for Agriculture and Rural Development, Textile Committee of India, Department of Science & Technology, Majority of State Governments, Khadi & Village Industries Commission, Coir Board and other organizations like Grameen Development Services, Rajasthan Chamber of Commerce & Industry. Now as a marketing strategy or because of huge business opportunities, many commercial banks are also seriously thinking and coming forward to support cluster development projects, especially in creation of common facility centers and providing funds for bulk purchase of raw materials etc.

In the recent past some state Governments has pursued cluster development interventions and this has enabled them to contribute significantly to the growth of certain selected clusters. Some of the State Governments across the country are

now gearing up to seize the initiative and adopt cluster development policies for contributing to the growth of the MSME sector in their respective states.

1.5. Present Scenario:

At present the Ministry of MSME, the Ministry of Textiles, the Ministry of Rural Development, the Ministry of Industry & Commerce implementing various schemes related to cluster development. Micro & Small Enterprises Cluster Development Programme (MSE CDP), Integrated Handloom Cluster Development Programme (IHCDP), Scheme of Fund for Regeneration of Traditional Industries (SFURTI), Baba Saheb Ambedkar Hastshilp Vikas Yojana (AHVY) etc are a few to name cluster based developmental programmes. It is mentioned that there are about 6000 Artisan based clusters including Handlooms & Handicrafts and 600 manufacturing enterprise clusters in the country. At present interventions are going on in more than 1000 clusters in the country.

Many National Level Entrepreneurship Development Institutes like National Institute for Micro, Small and Medium Enterprises (**ni-msme**), Hyderabad; National Institute for Entrepreneurship & Small Business Development (NIESBUD), New Delhi; Indian Institute of Entrepreneurship (IIE), Guwahati; Entrepreneurship Development Institute of India (EDII), Ahmedabad, State Level Consultancy Organizations, District Industries Centres, Industry Associations, NGOs and other State and Central Government agencies actively involved in development of clusters.

In the recent past the Ministry of Housing and Urban Poverty Alleviation and the Ministry of Food Processing also introduced a few schemes which help to promote micro enterprise clusters through capacity building of Self Help Groups, local communities and also micro enterprises.

2. OBJECTIVES OF CLUSTER DEVELOPMENT

The key constraint that MSMEs face is not the size of the unit but working in isolation which leads to lack of organization and inadequate linkages with other firms, lack of market expansion, support institutions and also service providers. They can significantly enhance their competitive advantage at the global level by co-operating each other and with private or public service providers to upgrade themselves through cost reduction, joint learning, collective efficiency and sharing of information. There is ample evidence that MSMEs operating in the same or in related industrial sectors tend to be in a cluster close to one another. This tendency to bunch in well defined areas has been observed in different environments in both developed and developing countries. There are sound economic reasons for this phenomenon. MSMEs operating in such clusters derive a clear competitive advantage from:

- The proximity to sources of raw inputs,
- The availability of suitably customised business development services,
- The abundance of clients attracted by the cluster tradition in that industry, and
- The presence of a skilled labour force.

Clusters can be categorized on the basis of stages of development. In the initial phases of development there are only a few industries and their success encourages other units to emerge. The enterprises spring up due to a variety of factors, both natural and induced. While natural factors consist of presence of high demand as well as private initiative, other induced clusters can come up due to policy incentives, availability of infrastructure and a large public undertaking as a buyer.

The availability of skilled workforce as well as critical raw material also creates favourable conditions for emergence of enterprises. It has been seen that large corporations invest huge sums of money in development of prototypes which are then produced abundantly for the masses by MSME value chains that are labour-intensive and involve job workers.

In the 'growth' phase new firms swiftly emerge and thus enhance competition. It is characterized by rapid development of the industry, intervention by support

institutions including government institutions and consolidation of other raw material and service providers. In the spheres of marketing and management innovative means are likely to be developed. Increased competition provides impetus for technology development and expansion into new markets. The widening of national and international markets that the cluster caters to boosts growth.

Strengthening of existing clusters and development of new clusters in exceptional cases towards sustainable competitive advantage through technology upgradation/ transfer, raw material access, skill development, managerial inputs and credit support, market support is common phenomenon in cluster approach.

The objectives of cluster development are to:

- Strengthen linkages within the cluster – with other MSMEs, larger enterprises, support institutions, local government, banks, business schools, etc.;
- Assist cluster stakeholders to develop a consensus-based vision for the cluster as a whole;
- Help stakeholders to coordinate their actions and pool their resources to move towards a shared vision for the cluster as a whole; and
- Create an autonomous governance framework, in a step-by-step process that will sustain dynamism and change in the cluster after the withdrawal of the implementing agency.

3. MODELS OF CLUSTER DEVELOPMENT

- **Area Development:**

Some of the NGOs like BAIF are working on area development in which they select group of villages as a cluster and support BPL families in capacity building, identification of economic activity, promotion of micro enterprises including marketing of their products. It is one of the sustainable development models successfully implemented in some of the states. The similar model may be taken up in urban slums for capacity building of poor to promote micro enterprises through group approach.

- **Promotion of Group of Artisans**

The organizations of the Ministry of MSME, Khadi and Village Industries Commission (KVIC), Coir Board, The organizations of the Ministry of Textiles, O/o Development Commissioner (handlooms) and O/o Development Commissioner (Handicrafts) working for development of group of artisans to solve their issues in holistic way. SFURTI, AHVY, and IHCDP are some of the schemes implementing for the benefit of group of artisans.

The artisans are mobilized to form self help groups and then a few activities would be taken up for trust building like exposure visits, participation in exhibitions, interaction with stakeholders of successful clusters, and then need based interventions like design development, export marketing and creation of common facilities would be taken up. The SHGs form separate consortiums for marketing, production and managing common facilities as per the cluster need. At the end of the project, these consortiums lead for further development of the cluster.

- **Promotion of Group of Enterprises**

There is good number of schemes for promotion of group of enterprises producing same or similar kind of products. MSE-CDP, Textile park scheme, Pharma park scheme are some of them which comes under this category.

MSECDP programme is suitable for existing clusters where as other schemes focus on infrastructure development to create facilities under one roof.

- **Promotion of New Enterprises (Based on availability of raw materials)**

  Some agencies are promoting enterprises based on availability of raw materials in the particular region. In some instances, the Women SHGs are supported for value addition of locally available raw materials where as in other cases manufacturing enterprises are promoted. In case of growing urban centers there is possibility for promotion of service enterprises related to construction, electrical, electronic and mechanical related service enterprises.

- **Promotion of New Enterprises (Based on availability of Human Resources)**

  The Government of Karnataka and Andhra Pradesh have taken initiatives to encourage entrepreneurs to establish IT businesses in Bangalore and Hyderabad respectively because of availability of IT professionals. When both the locations emerged as IT clusters many service oriented businesses like tourism, travel, training, hospitality and education were established in large numbers. In such cases of huge opportunities available in the region, the Government/ NGOs encouraging unemployed youth to start new enterprises by way of imparting requisite skills. National Skill Development Corporation, Director General of Employment & Training and National Academy of Construction

- **Multi Product Clusters**

  In certain cases/ areas there is possibility of promoting multi product clusters. The food processing enterprises need packaging material (Plastic/ Glass/Paper/ Corrugated Boxes) including printing (Flexoprinting/ Rotograghic printing). Hence promotion of multi product cluster may be very much feasible.

  But in India, we are promoting clusters using UNIDO methodology in majority of the projects.

4. CLUSTER ACTORS, THEIR COMPARATIVE ADVANTAGES AND LINKAGES

There are various actors in a cluster. Each has a distinct and complementary role in a cluster. They also have a comparative advantage in certain functions and aspects with regard to the key MSME actor.

4.1 MSME Enterprises

Small and medium manufacturing and service enterprises are key actors in a cluster. The roles and comparative advantages of other actors are to be visualized in the perspective of ultimate benefit to this actor.

4.2 Related Enterprises

These include raw material suppliers, marketers and other supporting enterprises. The related enterprises offer various services to each other as well as to the key actor and their inter-linkages are of particular importance in vertically integrated clusters.

4.3 Private and Public Service Providers

The actors in this category include Centres of Technology; testing and quality control laboratories and market information centres. They may be not for profit entities supported by Governments, Non-Governmental Organizations or Industry Associations. They may be commercially oriented ones. There are specific advantages possessed by successful service providers.

They may possess sectoral specialization as in the case of the Textile Information Centre CITER of Emilia Romagna, in Italy. They may also process transversal specialization viz., ability to provide a single service for industries of different sectors, for example, the Technological Modernization Centre ASTER of Emilia Romagna, in Italy.

In India, the Industries Department of State Governments set up and run common facility centres for major industries in a state. The MSME Development Institutes (MSMEDIs) operating under the aegies of the Central Government offer similar service. They offer subsidized services that the market may not immediately finance.

Actor	Comparative advantage
Private and Public Service Providers	*Possess sectoral or transversal specialization and may offer services such as R&D and, technical and skill upgradation. They possess relatively close linkages with key MSME actors.*

4.4 Centers of higher education and research

The actors in this category include academic institutions, training centres for entrepreneurs and Research and Development institutes. In India, the Coir cluster at Alleppey has the Central Coir Research Institute, the sea-food cluster at Kochi has the Central Fisheries Training and Research Institute and the leather cluster around Chennai has the Central Leather Research Institute and the Anna University to offer relevant support. They could serve as catalysts in the development process by means of ability to offer skill development and research inputs. While their own sustainability could be enhanced directly by fee-based industry linkages, incentives offered by local and National Governments are also useful. Some institutions such as the National Institute of Design (NID) offer support in product design to enterprises across several clusters.

Actor	Comparative advantage
Centers of higher education	*Ability to offer research and high value specialised courses for industry. Capacity to offer consultancy and technical support to entrepreneurs*

4.5 Entrepreneur groups

These include associations or Chambers of Commerce. These associations have the power of representing MSMEs on issues related to other economic agents. There are numerous entrepreneur associations in India. These are local, regional or national in terms of scope. Sector specific associations also exist throughout the country. At the National level, the Confederation of Indian Industry (CII), Associated Chamber of Commerce and Industry (ASSOCHAM), Federation of Indian Exporters

Organisation (FIEO), and the Federation of Indian Chambers of Commerce and Industry (FICCI) are prominent. At the sectoral level, there is the Indian Machine Tool Manufacturers Association (IMTMA). At the state level, associations like the Gujarat Chamber of Commerce and Industry (GCCI) operates. By virtue of itself representing industry, such bodies may influence other economic agents. They possess the advantages of closeness to firms and ability to access international co-operation.

Actor	Comparative advantage
Chambers of Commerce or Entrepreneur Associations	Capacity to represent and lobby for industrial demands. They are the actor closest to business enterprises.

4.6. Large Enterprises

Large enterprises are important actors even in largely MSME Clusters. By working with MSMEs in terms of forward and backward linkages they reduce own fixed investment and inventory costs. They may also increase their own response flexibility to market changes in demand, reduce their costs and overheads. Many clusters in India are vertically linked. The Hindustan Machine Tool Company in Bangalore is linked to numerous ancillary units. Large exporters in the rubber, coir and metal ware clusters source products from small manufacturers. They in turn offer stable and relatively accessible large volume and centralized market for MSMEs.

Actor	Role and comparative advantage
Large Enterprises	Offer market and cheaper source of supply for SMEs in a cluster.

4.7 Financial Institutions and Banks

This actor constitutes sub-actors such as developmental banks, financial intermediaries, reciprocal guarantee funds and micro financing institutions. This actor offers different financial instruments that help reduce risk and may also offer group credit. In India there are Developmental Financial Institutions (DFIs) such as the Small Industries Development Bank of India (SIDBI) and State level financial corporations. Nationalised commercial banks and private commercial banks also comprise this actor. Their existence is closely linked to industry and they may offer seed and venture capital assistance to meet industry requirements.

Actor	Comparative advantage
Financial Institutions and Banks	*Facilitate risk diversification; provide capital of short term or long-term duration and share financial risk in business.*

4.8 Non-Governmental Organizations (NGOs)

The actors in this category include national and international entities including civil associations functioning without profit motive, NGOs, foundations and philanthropic institutions. The neutrality with which they work and their access to international resources lends credibility to work with other actors. State level and National Entrepreneurship Development Institutions and numerous non-governmental organisations such as the South India Producers Association (SIPA), in Chennai, offer training and support services for tiny and small enterprises. The Self Employed Women Association (SEWA), headquartered in Ahmedabad offers similar services. Autonomy gives them operational freedom and required speed to implement support initiatives. Their support may be in terms of consultancy, research or lobbying assistance, for example.

Actor	Comparative advantage
Foundations and NGOs	*Neutral and objective approach, access to international resources and autonomy gives them great credibility amongst other actors.*

4.9 State and Local Governments

Within state governments, there are state ministries, municipalities, the three tier Panchayat bodies as well as related public sector enterprises. This actor can play a crucial role on the policy front for building a conducive environment for the cluster and in establishing preferential regimens such as free trade areas. The state Government of Gujarat, for instance plays a substantial promotional role in encouraging pharma units to upgrade themselves by providing Rs. 200,000 per unit for going in for state Good Manufacturing Practice (GMP). This actor has the advantage of greater understanding of industry requirements particularly at the micro level and also has the potential to access international support and assistance as well as assistance from the Central Government. It can become the driving force for mobilizing support for its industrial clusters.

Actor	Comparative advantage
State and Local Governments	*Greater understanding of industry requirements due to proximity. Other comparative advantages are similar to that of National or Central Governments.*

## 4.10 The National or Central Government and related bodies:

Within National Government there are bodies that function for the development of micro, small and medium enterprises and also clusters. In India, the Ministry of Micro, Small and Medium Enterprises play an important role in formulating policies and coordinating activities of institutions in different regions. Organisations such as the Khadi and Village Industries Commission (KVIC) and coir board are involved in promotion of networks or societies of small entrepreneurs in the rural industry segment. Public Sector Enterprises such as the Corporation for Promotion of Production (CORFO) in Chile, the National Council of Science & Technology (CONAYCT) in Mexico are responsible for planning and implementation of support policies for enterprises and for development of promotional programmes of innovative technology.

This actor has the capacity to formulate, make and implement legislative and public systems reforms to facilitate productive integration of various actors in a cluster. It also has the ability to request for international financial resources or technical assistance.

Actor	Comparative Advantage
National or Central Government	*Power to bring together local economic agents and formulate and implement policy interventions; ability to seek international financial and technical assistance.*

5. CLUSTER MAP

A Cluster Map indicating the various linkages and actors that exist in a cluster is presented in the Figure below. It can be observed from the cluster map that if mechanisms to strengthen these linkages are created the cluster as a whole can become more successful.

Cluster Map
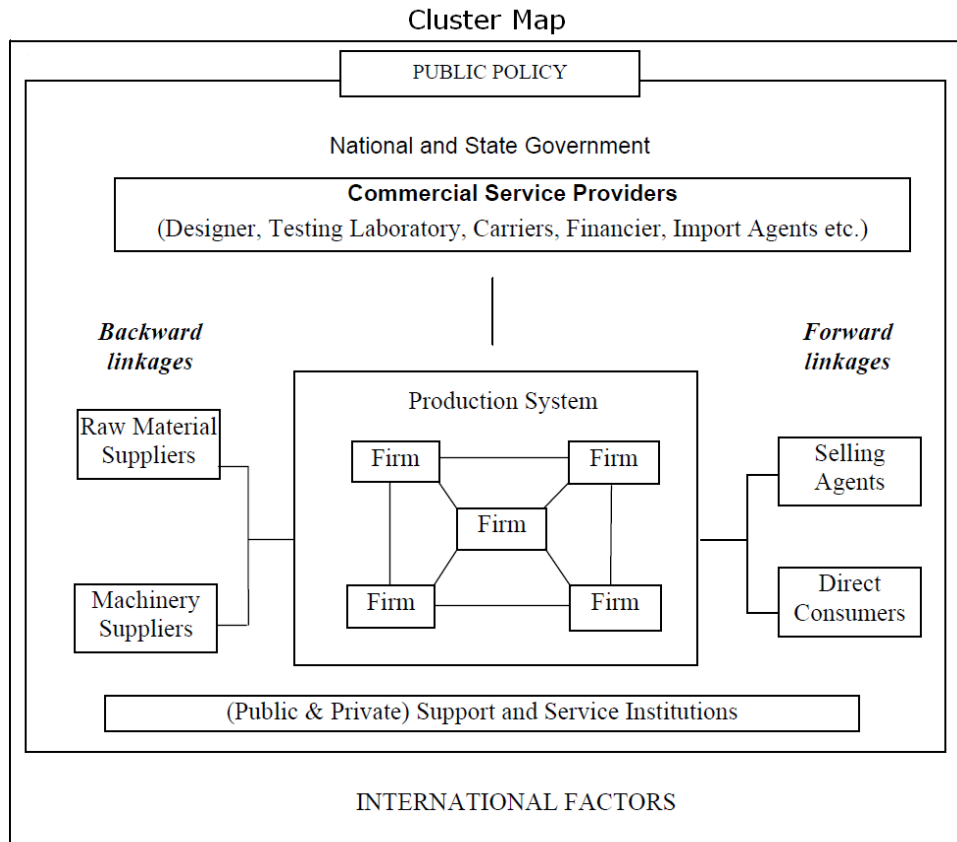
6. CLUSTER DEVELOPMENT METHODOLOGY

The important steps in Cluster Development methodology are:

- Identification of clusters
- Selection of clusters
- Selection of cluster development agent
- Diagnostic study
- Trust building
- Preparation of action plan for intervention
- Approval of action plan by funding agencies
- Implementation of action plan
- Handholding and monitoring
- Exit

6.1. **Identification and Selection of clusters:** In a region there exists number of clusters. Cluster costs are substantial and development resources are often limited. In order to select a few clusters for development, mapping of clusters is essential. The basic data about each of the cluster need to be obtained for mapping of the clusters. Some of the important factors considered for selection of clusters include the product being produced, number of enterprises, number of people involved in processing, usage present technology, scope for introducing new technology, availability of infrastructure, local leadership, presence of technical, management and R&D institutions to ensure an effective and wide-reaching impact. ***The final selection depends on the cluster's importance, viability, promotability and sustainability.***

6.2. **Selection of Cluster Development Agent (CDA):** The approach calls for the appointment of a full-time cluster development agent (CDA) for a fixed time period by the implementing agency. The CDA plays a pivotal role in the assessment of the development potential of the cluster. Especially in the early stage of the intervention, the CDA being neutral and mandated to encourage group activities with direct or indirect business relevance - is also the engine behind cluster development. Increasingly, as trust is built up among the stakeholders, the CDA leaves "routine" activities to others and passes on the

task of initiation as well as implementation of activities to local intermediaries. Through these intermediaries, the CDA can upscale activities in the cluster, especially where initial success leads to higher demand for those. The final task is to fill the gaps in the ability of intermediaries to identify tasks and implement activities on a continuous basis, to establish a system of self-governance in the cluster.

6.2.1. Some important qualities of CDA

- Has familiarity/experience related to business operations of MSMEs
- Is a neutral person
- Is self-motivated, assumes responsibility – a dreamer
- Open to new ideas, tries them out
- Enjoys autonomy and takes decisions
- Likes to work with people, communicates, connects and motivates
- Physically fit to travel a lot, preferably in late 20s to maximum of late 40s
- Based in the cluster
- May or may not be technically qualified

6.2.2. Key responsibilities of CDA

- Understands need, motivates, resolves conflicts and build linkages among different stakeholders
- Helps cluster stakeholders in formulation of common vision
- Assists in action plan formulation
- Implementation
- Creation and reorientation of local institutions/associations
- Mobilization of funds
- Documentation on interventions

6.3. **Diagnostic study:** The origins of each cluster differ, and each will take its own path, but there are a number of common elements, which influence their development. Clusters start naturally, but the development of clusters does not need to be left to chance. The clustering process is natural and driven from within. The diagnostic study identifies the constraints and opportunities

that would benefit from being addressed collaboratively by the cluster enterprises.

If the cluster stakeholders are good enough about cluster approach, the initial analysis acknowledge the issues, which are hindering growth of the cluster. The cluster development process needs to be fine-tuned for each cluster. The history of collaboration among the cluster stakeholders in that region and the structure of the cluster will all influence the development path. Each cluster will have its own opportunities, roadblocks, traditions and culture. Some clusters can quickly move into substantive development initiatives, others take time to develop the necessary trust. Hence conducting a small study is necessary to understand and find suitable remedies for the cluster.

The analysis of the cluster helps to identify the number of different types and sizes of the enterprises, availability of the resources, history of the cluster, infrastructure available, understand activities of various associations working in the cluster and their impact, verifying whether the cluster manufacturing and marketing viable products, if any interventions taking place and involvement of various public and private organizations including service providers. It will help in designing soft interventions that can be taken up immediately for development of the cluster. Also this particular activity helps to build trust among the cluster stakeholders and motivating them to take part in the cluster development process. A few soft interventions like workshops and exposure visits may give direction for hard interventions and also helps the cluster stakeholders to understand their important role for successful implementation of the cluster development programme. Also the study helps to understand the cluster activities, products, processes, markets, their role in local economy, dynamic cluster groups, associations, government organizations, and bankers etc.

6.3.1. Understanding Status of the Cluster:
The basic information of cluster units, products and its position in the local, national and global economy will be collected to draw the present cluster map including linkages with backward and forward units, support units and other

government organizations. This will give an idea to fix the boundaries of the cluster and important stakeholders which whom the interventions could be taken up.

6.3.2. Identifying the Leadership:

The appropriate group of people will be carefully identified to participate in the development of cluster. The group may be from industry association or other independent entrepreneurs.

6.3.3. Identifying Suitable Interventions:

A detailed exercise is to be carried out by visiting industrial estates, interacting with entrepreneurs, government officials, and bankers by arranging meetings/workshops. A few key steps will be identified to take up cluster development programme.

- ➢ New Business Opportunities
- ➢ Training Needs
- ➢ Networking
- ➢ Market and Marketing innovations
- ➢ Technology innovations
- ➢ Expansion

6.3.4. Developing Cluster Vision:

Based on the present cluster position, a suitable Vision will be designed with the involvement of cluster stakeholders to establish the preferred future for the cluster. Accordingly a Business Plan will be prepared.

6.3.5. Short Term Action Plan:

A short-term action plan will be prepared for initial one year or two years.

6.3.6. Cluster Team:

A dynamic group from an industry association or any other institution will be constituted to look after cluster development activities.

The Implementation of the cluster development initiative starts by gathering information about the cluster in a strongly participatory manner. Such information includes constraints faced by the stakeholders, untapped potential, local linkages and support mechanisms available, etc. The participatory process helps to build initial trust with the local stakeholders.

The required information may be collected from all the stakeholders including raw material suppliers, machinery suppliers, key/ core manufacturing enterprises, marketing personnel, business development service providers and other support institutions and organizations. The survey report is to be validated with the stakeholders before going for implementation.

6.4. **Trust building:** Establishing an atmosphere of trust within a cluster is an essential prerequisite to earn the support from those involved in the cluster. Here the Cluster Development Agent must first develop "bilateral" trust with individual stakeholders and then use it to create/enhance trust among the other stakeholders. The process starts with informal/formal interactions and later takes the route of trust building through participation in activities.

At the conclusion of the diagnostic study, the CDA facilitates evolution of an action plan. The action plan is to be validated by the cluster actors and then it is time for him to implement the same. This is a crucial stage of the programme, where an activity is ideally seen as a demand-led phenomenon and necessitates active involvement and investment of resources by various cluster actors.

6.4.1. Building Trust: Trust may be defined as that critical level of understanding between a group of cluster actors that facilitates and adds momentum to a joint activity by that group and leads to direct or indirect business gains to at least a pre-defined group of cluster actors. Thus, trust in the context of cluster development is not an absolute concept. It can at best be called functional trust – a level of trust that governs or initiates a function (a joint economic activity) within a cluster.

A group of cluster actors share information amongst themselves, depending upon the level of functional trust that they enjoy with each other. The genus and subsequent implementation of a joint activity are guided by the level of trust. Thus trust is also equated to "social capital" of a cluster. Very much as physical capital (that can be accumulated to increase productivity of labour), social capital builds up over time to ease economic transactions and thus boost productive efficiency.

Such functional trust ought to exist between cluster actors, between networks, between a network and a support institution and, above all, between a CDA and each cluster actor. Functional trust between two entities defines the range of activities possible by a combination of efforts of those two entities. A joint effort (an event), which is a combination of efforts of firms, networks, support institutions and the CDA depends on the level of functional trust that is enjoyed simultaneously among all those entities.

For instance, the level of social capital of cluster actors can be conducive for various elementary activities, such as joint meetings, organization of workshops, etc. to meso-range activities like buyer seller meets, credit guarantee consortiums, joint export delegations, etc. to various high risk areas with long term returns, such as an export promotion zone, brand building, etc. The more complex an activity, the higher is the level of involvement required of different cluster actors implying a higher level of functional trust among those activities, hence such activities are therefore more difficult to undertake, entailing a greater challenge to the CDA and cluster actors. People, who understand the cluster or a group of cluster actors and already have a history of positives within the cluster, can also be motivated to build trust within the cluster. Such persons have a huge knowledge base regarding local dynamics and can easily motivate people to go for joint activities. At times, joint visits to performing clusters also create a positive atmosphere. Most often this happens through eye-openers by comparing the current level of achievements with the achievable and also through constant information exchange that takes place during the staying together by ironing out many doubts and

inhibitions which are often picked up through secondary sources and do not really have any basis.

While the above may be an entry to the cluster, the process of trust building, which starts with the diagnostic study, and picks up with small interactions, gathers momentum with initiation of activities. Trust is not created in isolation. Since cluster actors, who, to start with respond to broader issues, soon start looking forward to direct/indirect business gains. Hence, the component of trust has to be built in with activities. Each activity entails numerous interactions, understandings, making and fulfilment of small promises, demonstration of positives, etc. which all gathers mass and creates the momentum and is a step-by-step process of enhancing the ambit of functional trust and leads to formation of social capital.

In this process the most important aspect is to initiate activities, which are of prime importance to the cluster. Thus, in Jaipur trust was built with majority of activities centred on marketing. Out of an estimated 110 different activities carried out in a cluster, 40 activities were related to marketing. In Ahmedabad trust is being built around activities related to quality up gradation.

At times, when there is total lack of motivation, trust can be induced through innovative means. For example, *in Ludhiana trust was built around activities related to information technology, where later activities concentrated in areas related to marketing and training. In Jaipur, when it was found difficult to initiate trust among the printers who carried historical perceptions about fellow printers and were not keen to cooperate, the younger generation printers were targeted to create a sense of cooperation and establish positives ripples in the cluster.*

The example of Ludhiana based exporters forming the Apparel Exporters Association of Ludhiana (APPEAL) is a direct result of this ice breaking due to their visit to Tirupur. Similarly, foundrymen from the Bangalore machine tool cluster undertook a visit to the Belgaum

foundry cluster. This time off from the cluster where they eat together, take a journey together and play cards on the way became a step towards trust building.

6.4.2. Indicators of Trust Building: Initiatives aimed at trust building must result in concrete outcomes so that the CDA can monitor the emergence of trust. Several developments provide useful elements to judge the evolution of such a process:

- The formation of new more focused networks/associations in the cluster (as well as the revival of old ones) is an indicator that greater consensus is spreading in the cluster

- Increased level of participation in these new networks/associations show higher levels of enthusiasm amongst members and broader variety of demands

- The cluster actors' display an increased level of commitment. They not only chalk-out their own long-term vision and consequent action plans, but they are willing to commit their own resources and explore additional sources of funding

- The cluster change agent becomes increasingly a listener rather than an instructor. His participation during the discussions among the group member is drastically reduced. He is only a facilitator to help the members in developing an achievable, practical level of vision

- Co-operation amongst the various cluster actors is enhanced and results in a free flow of information, sharing and discussing on markets, technologies, institutions etc. When the firms collectively experience the economic advantages of co-operation, long-term relationship begins to emerge

- The diagnosing of real needs of the small firms, analysing the cause rather than the manifestation of problems and identification of common concerns leads to real functional solutions

- The institutions having built their bridges with the small firms have greater access to the target group of potential beneficiaries and a broader appreciation of the needs of small enterprises

6.5. **Action plan:** This list of activities (generally for a year) which is more than the sum total of demand from the different cluster stakeholders starts with inputs from the diagnostic study. It is a roadmap that will help foster relationships among the stakeholders while delivering visible results. It is also an attempt to embody the vision for the cluster as a whole in a set of activities that can be implemented through stakeholder collaboration. Action Plan is made annually.

An action plan identifies priorities for action and attempts to schedule various opportunities for intervention over the implementation of a cluster development programme. Upon completion of a cluster diagnosis, development of a cluster vision and a formulation of broad strategy to realize the vision, it is necessary to develop an action plan. The need for an action plan is to help:

- Plan resource contribution from different actors or sources and its allocation over implementing various cluster development activities
- Fix responsibilities for the implementation of these activities
- Prepare a time frame for implementation of various activities and
- Monitor the progress made over implementation of cluster development activities

An action plan should be flexible to changes, transparent, and represent beliefs of cluster actors, particularly, in terms of it being validated. The firmness of an action plan improves over time, with the initiation of various activities

6.5.1. Components of an Action Plan

An action plan, while having an in-built flexibility for change, may have the following content structure:

- Nature of the activity
- Target beneficiary actor or group
- Sequencing of implementation
- Fixation of responsibility for implementation
- Finalisation of resources needed for implementation
- Break up of contribution from beneficiaries vis-à-vis other actors, such as support institutions, for example

- Specification time involved in implementation of various activities including person-day involvement of different actors as well as that of the CDA

The activities in an action plan include trust-building activities amongst actors in a cluster, the launch of pilot activities and the organisation of regular activities for the benefit of actors. It may also involve strategic and capacity building initiatives amongst others.

In elaboration, activities include:

Trust Building activities: These may include interactive meetings or workshops amongst actors for discussion on common problems, for example, joint exposure visits to other clusters in groups, as also joint participation in some training programmes and seminars. These could facilitate the initial trust building process amongst actors by virtue of regular interaction (with no obligations initially). The need for working together to achieve various benefits to individual enterprises is also identified and realized.

Pilot activities: Pilot activities may include provision of linkages with new BDS providers from outside the cluster or region, demonstration of new or "benchmarked" technology and specialized capacity building seminars. These activities are more by way of testing out various necessary interventions or for identifying potential common business plans for benefit of micro enterprises in a cluster.

Capacity building: These initiatives may include formation of networks or their strengthening for implementing various common business plans, assisting Network Development Agents (NDAs) and exposure visits to support institutions. This may also include strengthening of BDS providers and support institutions so that they may continue to serve the industry with greater capacities.

Regular activities: These include participation in fairs, common and bulk raw material purchase establishment of a Mutual Credit Guarantee Fund Scheme for common financing for instance and training and consultancy on quality upgradation amongst others. They may also include participation in trade fairs, organization of exhibitions; take up bulk procurement of raw material etc.

Strategic initiatives: These include usually long term initiatives with heavy resource inputs and long term scope for yielding benefit such as common brand building, establishment of information centres, R & D centres, improved vendor rating mechanism and development of sub-contracting relationships between microenterprises in a cluster and large enterprises within or outside relevant clusters.

Others: Other interventions may include initial liasoning, development of case studies to benchmark standards on various fronts and disseminate such information amongst actors and development of new market linkages, for instance.

The activities to be undertaken as a part of an Action Plan may either be explicitly demanded by the cluster actors or undertaken at the behest of the CDA who may initiate an action in the cluster considering its critical importance.

One the action plan is prepared and validated by the stakeholders; it is to be submitted to funding agency for approval. The implementation starts once it is approved and funds are released.

6.6. **Implementation:** This is not simply the realisation of the targets set, but involves a radical change in the way the cluster stakeholders interact and conduct activities. The responsibility for implementation of various activities is progressively shifted to the stakeholders, particularly those in the private sector, with support from local institutions. In the implementation of the action plan the stakeholders discover the advantages of closer cooperation. Joint activities with intermediaries also enhance their capacity and strengthen the governance structure of the cluster.

The cluster development agent should view the implementation of the activity plan as an opportunity:
- to definitely win the trust of his/her partners and enhance trust among cluster actors
- to prop up their confidence in the implementation of the plan
- to familiarise them on the principles and benefits of collaboration, and also

- to prepare them for failures and setbacks that they may sometimes experience in their projects.

For this purpose, it is essential that the Cluster Development Agent should practice following principles during implementation.

6.6.1. Encourage participatory development

The various cluster actors and entrepreneurs who are members of various networks need be motivated at each stage. This is best done through regular interactive meetings publicising the good work done by the actors for the development of the networks and the cluster. One can also discuss fresh and potential ideas with actors. If an actor is convinced, he must be encouraged to own such ideas at group meetings, where the validity of such ideas may be practically tested. Other actors can draw inspiration from this process. Thus a practice of "participatory development" can be inculcated through this mechanism.

6.6.2 Give credit, absolve errors

It is important to give full credit whenever success is struck, even if on a small scale. This helps in creating the confidence and gathering momentum required for self implementation. It is important to analyse errors but equally necessary not to pin point responsibility and to prevent humiliation for the cluster actors responsible for them. This gives them the moral responsibility to correct themselves for future actions and also motivates them to plunge into action, and brave the failures that might happen in the process. In connection with the previous principle, giving credit increases the likelihood of transforming a group of cluster actors that have started co-operating on a single project to slowly expand not only their ambitions, but also their vision.

Activities at the Calico Printers Co-operative Society (Calico) Ltd., Jaipur started with the organisation of a fair-cum-exhibition at Jaipur. As such this was not a major event, with respect to results. Yet, it was a major venture after Calico lay defunct for several years without

initiatives and developmental activity. Therefore, the President of the Society was given adequate credit in the presence of his fellow members, representatives of his society and various important public figures for taking the lead in this initiative. He welcomed the dignitaries at the inaugural function. This gave him the confidence and motivated him to take lead in some major initiatives at a later point of time. These include participation of a 20-member Calico sponsored delegation at an international Fair in Osaka, and participation in Fairs in major cities of India.

This also motivated his fellow members and some of them also took lead in certain other initiatives like group formation for credit guarantee consortium, bank loan syndication, renovation of common showroom, etc

6.6.3 Wait and watch

The cluster actors will inevitably commit some mistakes while implementing the activity plans. On such occasions, the CDA should avoid playing an excessively 'lead' role, keeping in mind that the very same people will have to learn to rectify their mistakes by themselves and also learn in the process. Furthermore, it is quite common for the cluster actors, and especially for the entrepreneurs themselves, to possess problem-solving capacities that go beyond those of the CDA. This is often the result of their in-depth understanding of the inner dynamics of the cluster, as well as of the industry where they operate.

However, the CDA should employ a 'wait and watch' strategy preferably when dealing with partners of a certain capacity or after a couple of activity plans have been successfully implemented so as to prevent jeopardising the overall activity plan implementation.

The Calico consortium in Jaipur decided to organise by themselves the participation of its members in a fair at Delhi. Previously for a similar fair a specialised agency had been hired. Inadvertently, a critical element of marketing, the newspaper advertisement was neglected.

The result was significantly poor attendance during the initial days of the exhibition.

The CDA however did not interfere. The printers discussed among themselves, located the mechanism of giving advertisement, contributed for the advertisements and extended the duration of the exhibition on their own. The results improved. The experience helped them to strengthen Calico and other similar groups in planning and implementing more coherently from the very beginning.

6.6.4. A true critic

The aforesaid issues discussed in the previous sub-sections should however not be misinterpreted as a passive intervention approach. The CDA must carefully scrutinize and discuss the behavior of each of partner or cluster actor to avoid excessive deviation from the terms of the activity plan. This is to be done not with the aim to point fingers to assign responsibilities in case of failures but rather to learn from the "mistakes" committed. As an example:

The action plan for the Hand Block Printed Textile cluster of Jaipur placed a great deal of emphasis upon increasing the marketing capacity of the artisans located in the village of Bagru. For this purpose, a number of activity plans were drafted and implemented, which were aimed at finding new designs, at increasing product quality, and at expanding the marketing capacities of the artisans.

It was estimated by the Bagru printers as well as by their institutional partners within the cluster, that total sales nearing Rs. 300,000 could be achieved. Unfortunately, only about one third of such figure was achieved by the hand-block printers. This shortfall created a great deal of concern and disappointment within the artisan community.

It was here that the CDA intervened and emphasised the importance of fixing realistic targets rather than fault finding for their low performance. This situation was discussed among the cluster artisans,

and it was realised that the shortfall had to be related to inadequate retailing strategy.

With the help of the CDA, a wide cross-section of experts were consulted who were asked to diagnose and analyse. Their study revealed that customers were not used to purchasing only bedspreads but also accessories such as cushion covers, table linen etc. as well. In fact, the need to diversify the entire product range to include all household items, dress materials was identified. Hence the Bagru artisans were richer in terms of experience and the need to diversify.

Galvanised by the discoveries made, the hand-block printers subsequently broadened their product range significantly, and the lessons learned were gainfully utilised in subsequent fairs where they participated

6.6.5. Ensure the stake of the participants

The beneficiaries of an activity plan need to be directly involved in it, both in terms of their time and financial commitment. The CDA should also convey that:

- the financial involvement of the implementing agency would not continue after the cluster development program and that the cluster actors need to think in terms of long-term sustainability of what they are doing;
- the greater the stakes of the cluster actors in future activity plans, the greater their freedom to set their objectives
- financial and technical support from the implementing agency will be progressively shifted to more innovative and more risky activities.

6.6.6. Regular information dissemination

It is essential to keep the members of the networks and the institutions duly informed regarding each significant development taking place during the process of implementation of the activity plan. This is especially critical in the initial stages of implementation, when the results of implementation begin to show. Dissemination in turn leads to useful feedback from the members/institutions in

the form of suggestions which is imperative for continuous success of the programme. Undoubtedly, it also encourages mutual trust and understanding Keeping people informed also gives a sense of ownership and pride and creates an eagerness among cluster actors to achieve success in the concerned activity.

6.6.7.Transparency

"Transparency" in vital for success in implementation. Often many networks are reviving from almost a total non-functional stage and from a state of high mistrust. The greatest harm to the network occurs if such elements of mistrust are re-occurring after the revival of the network. The cluster co-ordinator or the implementer should never try to hasten the process of implementation for results, even at the cost of slightest non-transparency. Transparency creates a solid base and also helps to iron out the elements that are prone to induct non-transparency in operations in the future, thus building a stronger foundation for long run survival of the cluster.

6.6.8. Balancing Act

The CDA should also balance his presence in different networks. It is desirable that his presence is felt equally by all actors. This is especially so since different near similar economic interest groups work in separate networks in a cluster. The balance is also to be reflected with respect to monetary as well as non-monetary support. Hence it is advisable to form a norm of assistance right at the beginning for different stages of development. The norm may change with time and the actors should be taken into confidence in this exercise. Else a differential model, different for different networks, may be maintained right from the beginning with the full knowledge and understanding of all the networks.

6.6.9. Risk Taking

The CDA has to be a risk taker. Since, successful completion of an activity demands simultaneous completion of
(a) Motivating cluster actors for a particular action,
(b) Involving the apex implementing agency and support institutions and
(c) Organizing the activity.

Such risks are more common at the beginning of the programme or for initiatives which may be 'non-conventional' or 'new' to the network or the support institution. It can be new also if the support institution is being involved for the first time in such an initiative with the particular network.

6.6.10. Linkages with support institutions

Linkages with support institutions help hastening implementation and broadening reach. It is, therefore, necessary that all support institutions are duly sensitised. It is less productive to first start implementing an action plan and then rope in a support institution. In that case, support institutions fail to perceive implementation as a component of their own programme. In contrast sensitising the institutions and roping them in at the right time is important.

6.6.11. Capacity building

As emphasised, the aim of the activity plans and the cluster action plan from which the latter are drawn, is not only to realise the cluster vision but also to set in place a cluster-wide governance mechanism. The latter is expected to enable the cluster actors to collaborate with one another to tackle their collective challenges, even after the departure of the CDA. In order to do so, it is vital for the CDA to share and transfer his expertise, experience and knowledge before s/he exits from the cluster.

This is to be done not so much through formal teaching, but rather through exposure to successful cases and through direct involvement with cluster actors at every stage of activity planning and realisation. It is important to stress that capacity building should eventually encompass the entire cluster, rather than simply a part of its actors such as only the entrepreneurs or institutional partners. Since this is probably the key difference between this approach and other ones (e.g. MSE network building) it is vital that the CDA understands about the importance of capacity building at all possible levels before being involved in this activity plan and its implementation. *He should realise that "the day of his entry is visualised along with the day of withdrawal"*

The common element among the initiatives mentioned is that they all contribute to publicise the principles of cluster development among the cluster actors. They are therefore quite different from other types of training initiatives, which are likely to be included in the cluster action plan but which are predominantly focused at broadening the competence of the cluster actors in terms of their capacity to realise the cluster vision.

To ensure capacity building, the CDA must identify one or more counterparts within each of the organisations/networks s/he collaborates with. A preliminary action to ensure such a final outcome is to decentralise responsibility. This implies involving the greatest number of people (in the partner networks as well as in any other institution). It is among such people, who have been exposed directly to the technicalities of cluster development that the future cluster leaders are most likely to emerge.

6.6.12. Critical mass for success

A crucial determinant of the success of the cluster development approach is "critical mass". For example the greater the number of actors directly involved in the realisation of the cluster vision, the easier it becomes to break communication barriers among them and the easier to disseminate all the principles of cluster development. In the longer-term, it is also extremely relevant for the realisation of the cluster action plan (the greater the variety of cluster actors contacted, the easier it is to find adequate partners for drafting and eventually implement a larger number of activity plans). As with any other initiative that aims at radically changing old-entrenched practices and at overcoming deep-seeded conflicts, cluster development also depends on a 'band-wagon' effect: the greater the number of people who subscribe a new vision and a new agenda, the harder it will be for sceptics to remain aloof. By the same account, the greater the number of entrepreneurs involved, the harder it will be for local institutions, and above all for local government, to turn a blind eye to their requests.

6.7. **Monitoring and Evaluation:** Monitoring of the quantifiable and qualitative outcomes of implementation helps to disseminate best practices and strengthen trust among stakeholders. It also allows the identification of

emerging changes in the relationships among cluster stakeholders and the adaptation of cluster activities and governance structures to these.

Both monitoring and evaluation (M&E) are involved with the gathering of data to measure the work undertaken by a cluster development project and to compare this with the targets set out in the project document. Monitoring is geared towards recording activities on an ongoing basis during the implementation of the project. Evaluation takes place both during the implementation of the project and retrospectively, at the end of a project or project phase.

6.7.1. Why do M&E?

There is no one reason for undertaking M&E activities. Different stakeholders involved in promoting Cluster Development have different interests, which in turn determine the type and scope of M&E information that are relevant to them. The M&E needs of the key stakeholders are described below:

For **Cluster Development project managers**, M&E is a management tool whose primary functions are: i) to keep track of whether the various project activities being implemented are on schedule and in line with the budget; ii) to analyze the degree to which these activities are translating into the anticipated outputs; and iii) to measure the effect these outputs have on the project's key impact indicators – levels of income, employment, empowerment, etc. M&E systems need to deliver information at each of these three levels to enable project managers to maximise impact, cost effectiveness and sustainability for their initiatives.

Private sector BDS providers are likely to undertake M&E to monitor customer satisfaction, respond to changes in demand, develop new and better products, manage costs, and establish staff incentives.

Donors need M&E information to ensure accountability in the use of their funds and to decide between different types of approach and project in their funding

decisions. Donors often focus on broader social and economic objectives of employment, enterprise competitiveness, and poverty alleviation.

Governments value M&E because it is can provide them with useful information on the relative value of different approaches and models. This, in turn, can feed into the process of policy formulation and the coordination of programmes on the ground.

For project **client enterprises**, participation in M&E exercises can provide an important opportunity for cooperation and trust-building and for having a meaningful input into the design and implementation of initiatives that directly affect their performance.

6.7.2. What needs to be measured?

The first and most important step in the design of an M&E system comes at the stage of project design. It is here that the key stakeholders need to reach a common vision about:
1. what it is they want to achieve;
2. what things the project needs to do for this to happen;
3. how they would know if they had succeeded in their goals; andm
4. how they intend to measure progress on these fronts

6.7.3. The log-frame as a tool for M&E

Within the context of the logical framework (log-frame) planning tool, these four questions relate to:
1. development objective and immediate objective;
2. outputs and activities;
3. indicators; and
4. Sources of verification.

So, using the vocabulary of the log-frame, M&E can be described very simply as the process of measuring project achievements against the various targets set for

each indicator at the four levels of the log-frame (activities, outputs, immediate objective and development objective).

The three core problems faced by most MSME projects are that:

1. they tend to gather much data on activities and outputs, but very little on the project's immediate and development objectives;

2. their collection of financial data on both costs and benefits is rarely sufficient to enable them to undertake rigorous and authoritative benefit-cost analyses; and

3. their indicators for sustainability are insufficiently clear to serve as a useful management tool.

Outputs related to manuals produced, training courses provided, exchange visits undertaken, etc. (activities); and of clusters strengthened, policy-makers sensitised and producer associations empowered (outputs), etc. can be described as **project performance**. However, they have little to say about increases in employment or income, etc. (immediate objective); or about poverty alleviation or other higher order development objectives. This is **project impact**.

The Cluster Development approach is based on the belief (among others) that clustering and networking among enterprises promotes enterprise competitiveness. But can this belief be assumed to be true? We know, for example, that some clusters are highly dynamic while others are more or less stagnant. The relationship between the *outputs* associated with Cluster Development projects (increased cooperation and networking within networks and clusters) and their *impacts (*increased wealth and poverty alleviation, etc.) is complex and relatively little understood.

6.7.4. What needs to be measured to determine project impact?

Measurements of trends in the following areas are likely to lie at the heart of all Cluster Development projects.

- **Scale**: how many people, enterprises and/or institutions were affected?

- **Outreach**: to what extent did the effects (hopefully benefits!) of the project spread to specific target groups (the poor, women, specific castes or ethnic groups, particularly isolated or marginal target groups)?

- **Economic gains or losses among client enterprises**, (e.g. changes in output, productivity, product range and quality, income, employment, etc.)

- **Total economic gains or losses**, i.e. including those beyond client enterprises.

- **Capacities and strengths of enterprise networks**, including horizontal and vertical linkages achieved during the life of the project.

- **Total entrepreneurial and networking capabilities**, i.e. including those beyond client enterprises.

- **The development of BDS and financial markets**: in what way has demand for and supply of BDS and financial services been affected by the project?

- **Strengthening of support institutions**: in what ways have the various support institutions, including producer associations and government agencies, been strengthened by the project?

- **Changes in the overall business environment that have an effect on enterprises**

- **Corporate responsibility**: that is, capability of firms to be "responsible" for social and environmental issues

- **Social Capital**: including issues such as collective action and cooperation, social inclusion and empowerment.

The process of cluster development is non-linear because the volume of activities is a positive function of social capital. As long as social capital is low, activities move very slowly and gather momentum only slowly. As confidence builds up and linkages increase, the activities pick up, which again increases confidence in each other. Mistrust can again slow down the process.

As the programme matures, certain activities may lose significance either because they were of a purely instrumental nature (such as activities to "break the ice" among

stakeholders) or because of better understanding of the real issues confronting the cluster. For this reason it may be counterproductive to insist on pre-conceived milestones to gauge the development of the programme. It should on the other hand not be a surprise to learn that a significant proportion of the activities implemented (up to twenty per cent) are unplanned.

Attaining objectives of cluster development requires external assistance in the form of sensitisation, trust building, conflict resolution, network creation, etc. The private (that is profit-oriented) agencies are unlikely to initiate such activities since the outcome is so uncertain that they are unlikely to be profitable in the short term, and at the same time, since the beneficial effects are freely available to all the cluster stakeholders, it is nearly impossible to price them appropriately, the latter being a pre-requisite for private sector involvement in initiating cluster development.
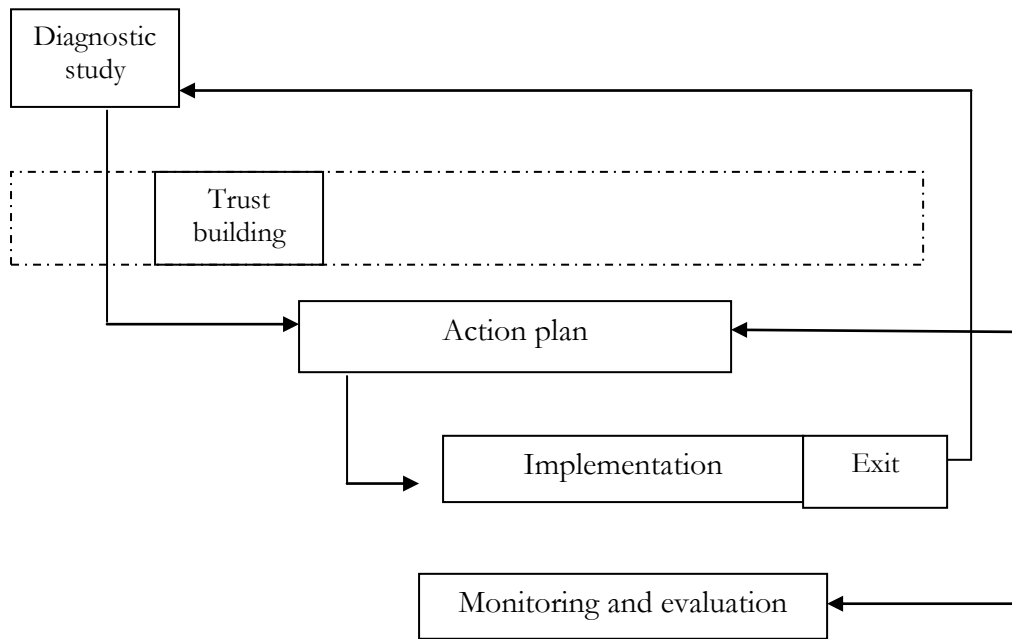
The various stages of cluster development are not mutually exclusive. They often overlap. In particular, the trust building phase is a continuous one. There are formal ways of building trust (discussions, workshops, etc.), but trust building between the implementing agency and the cluster starts even during the process of project selection, and also during the diagnostic study. Trust is also an integral part of the interaction among stakeholders during action plan formation, implementation and monitoring and evaluation.

The diagnostic study is basically a continuous process. As trust between the CDA and the stakeholder increases, more relevant information emerges and a clearer picture regarding the cluster is revealed. The diagnostic study is thus revised (at least internally, if not formally) and the action plan is modified accordingly.

The information the CDA gathers during implementation is vital for updating a diagnostic study and the subsequent revision of action plans or formulation of new ones. During the monitoring and evaluation phase, vital information similarly emerges regarding the speed, scale, coverage and resource requirements of activities that are being implemented. These have their effects on new or revised action plans which in turn determine the partners for implementation, degree of up-

scaling, etc. The cluster development approach is therefore not linear; it is a loop – a dynamic approach

Cluster Development – a loop approach

The approximate duration of each phase is presented in the below table.

Approximate duration of stages of cluster development approach

	1-6 month	7-12 month	13-18 month	19-24 month	25-42 month	42-48 month
Diagnostic study	——					
Trust building	······——	············	············	············	······	
Action plan		————	————	————	——	
Implementation		————	————	————	————	
Monitoring and review		——	————	————	————	