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Government's role in cluster development for MSEs Lessons from Ethiopia

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Abstract

Cluster development programs have become increasingly widespread tools in fostering innovation and growth of a competitive private sector in developing countries, including Ethiopia. As part of the MSE Development Strategy of the Government of Ethiopia, industrial clusters are considered as the main tool for spurring income and employment growth among micro- and small-scale enterprises. The purpose of this study is to analyze government's interventions in cluster development in Ethiopia and discuss some of the concerning issues regarding these interventions. The study summarizes experience of cluster development policies in the past, analyzes the challenges and provides possible areas of government action to strengthen clusters.

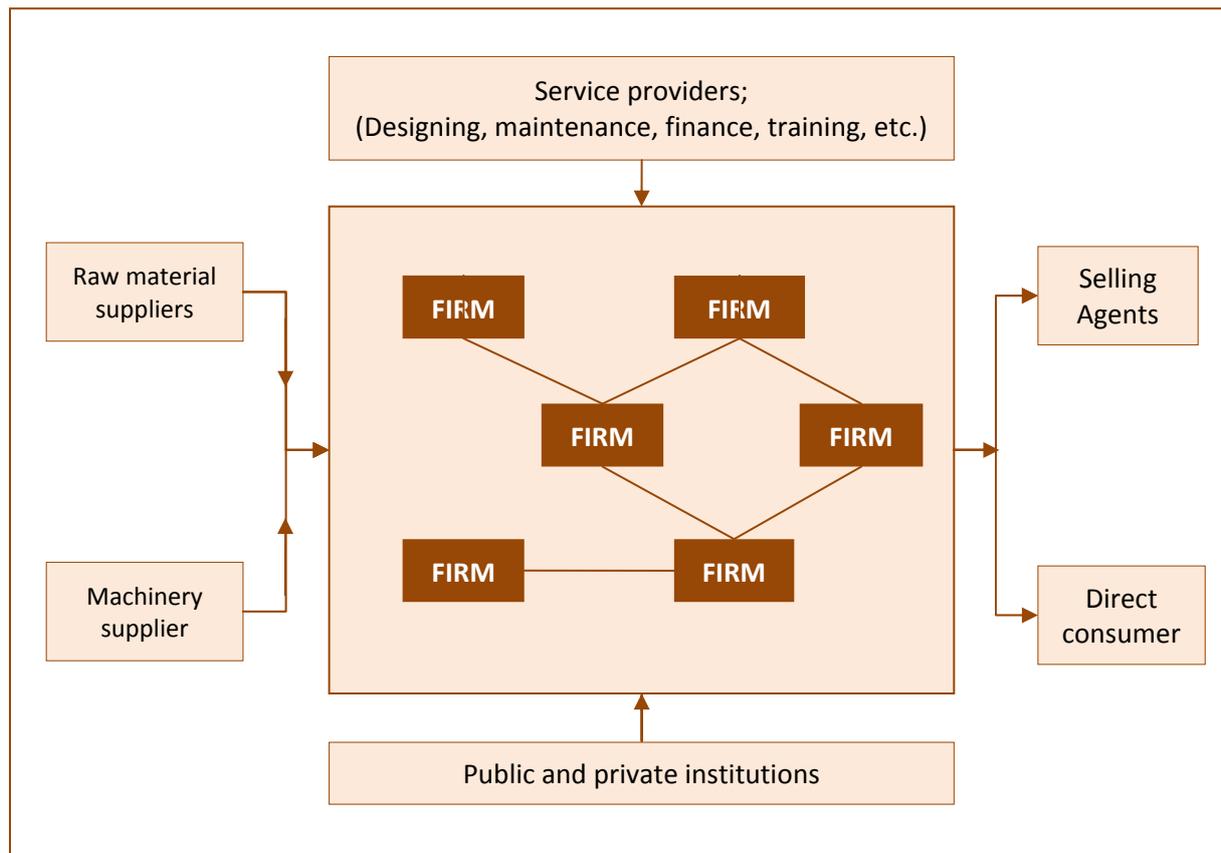
1. Introduction

Cluster development programs have become increasingly widespread tools in fostering innovation and growth of a competitive private sector in developing countries, including Ethiopia. As part of the MSE Development Strategy of the Government of Ethiopia, industrial clusters are considered as the main tool for spurring income and employment growth among micro- and small-scale enterprises. The purpose of this study is to analyze government's interventions in cluster development in Ethiopia and discuss some of the concerning issues regarding these interventions. The study summarizes experience of cluster development policies in the past, analyzes the challenges and provides possible areas of government action to strengthen clusters. The study is based on case studies, interviews and field visits of various government created clusters in Ethiopia. The outline of the report is organized as follows. Section 2 gives a brief discussion about clustering and its advantages. This is then followed by a review on the types and natures of existing clusters in Ethiopia in section 3. Section 4 is a general discussion about government's role in cluster development based on the experience of various cluster development policies from other countries. In Section 5, cluster development policies in Ethiopia are discussed and lessons are drawn from case studies of various government created clusters in the country. Finally, Section 6 provides concluding remarks.

2. Industrial clusters and the advantages

Industrial clusters are defined as the concentration of economic activities of a certain sector in a certain location producing similar and closely related goods. Industrial clusters include not only the concentration of output producing enterprises, but also input suppliers, output buyers, various service providers and in some cases government and non-governmental institutions (see Figure 1). Industrial clusters provide a wide range of advantages that enable enterprises to become competitive and profitable (Schmitz and Nadvi, 1999). The availability of inputs, specialized labor and various services in nearby locations help reduce costs of doing business within clusters. The presence of various actors close to each other also facilitates easy flow of knowledge and information exchange. Moreover, the trust that naturally develops within clusters helps provide the basis for joint actions (cooperation) to invest in common facilities and facilitate smoother commercial transaction, reducing risk and uncertainty. Industrial clusters typically lead to large markets that enable enterprises operate at a larger scale arising from the division of labor within clusters. The available large markets within clusters also provide consumers greater choice and convenience by reducing search cost.

In general clustering has two dimensions (Martin and Sunley, 2003). The first one is the functional dimension that includes local inter-firm linkages and forward and backward linkages with interconnected agents like input suppliers and output buyers. Such linkages often result in social inter-relationships that are manifested through trust and collaborative networks that develop over a long period of time. The second one is the physical dimension that indicates the physical co-location of enterprises close to each other (geographic proximity) in the cluster. While geographic proximity helps promote the functional dimensions of clustering, it alone does not provide a direct view about the nature and strength of local inter-firm linkages and social networks.

Figure 1: Example of composition of an industrial cluster

2.1 Natural versus government created clusters

There are two main types of industrial clusters in the world. The first types are natural cluster that spontaneously grow out of the concentration of economic activities based on market forces over a long period of time. These types of clusters are common throughout the world among different sectors such as the surgical instruments cluster in Sialkot, Pakistan, and the electronics cluster at Silicon Valley. The initial pull factor that stimulates natural clusters to arise could vary such as availability of raw material; suitable climate condition; proximity to markets; availability of educated work force or R&D facilities; migration along ethnic lines; etc. The second types are government created clusters that is induced through deliberate policy actions such as the establishment of industrial parks and export processing zones to attract certain industries to specific locations.

Although physical closeness of enterprises exists both in natural and government created clusters, there are a number of differences across the two (Table 1). While input supplies and various service providers are often present in natural clusters, they are usually absent in government created clusters. This is because, government created clusters such as those in industrial parks and export processing zones often attract large and vertically integrated firms, which don't rely much on the output of other firms to be used as inputs in their production. Related with this, the level of specialization and inter-firm linkages in government created clusters is not as high as that of natural clusters. The functional elements of clustering such as trust, collaboration and tacit flow of knowledge that are often present in natural clusters are also absent in government created clusters. This is because it takes a longer period of time for the functional elements of clustering to develop. Physical closeness alone is neither a necessary nor a sufficient condition for inter-firm linkages and spillovers that are held to be key cluster features, to occur (Boschmn, 2005). Without the functional elements among related enterprises, such as specialized suppliers and service providers, physical closeness alone cannot help maximize the clustering advantages mentioned above. In addition, government created clusters may fail to attract

large markets in the vicinity of the cluster because it usually takes time for consumers to adapt to the new location.

Table 1: Differences and similarities between natural and government created clusters

| | Natural Clusters | Government Created Clusters |
|--|---------------------------------|--|
| Physical closeness between producing enterprises | Present | Present |
| Level of specialization among producing enterprises | High | Low |
| Type of producing firms | From micro to large scale firms | Mostly large and vertically integrated firms |
| Input suppliers and various service providers | Present | Absent in most cases |
| Inter-firm linkages | Mostly Present | May be seen between few enterprises in the cluster |
| Trust and collaboration among agents in the cluster | Already developed | Takes time to develop |
| Large markets around the cluster | Already developed | Takes time to develop |

However, one of the main reasons behind government created clusters is because it is cost effective for governments to provide a group of firms operating in the same sector with the necessary services like electricity, water and road. In addition government created clusters are helpful to make targeted and sector specific interventions. Although very few in number, there are incidences where government created industrial parks and export processing zones have turned into successful clusters with strong local inter-firm linkages. Few examples are the Mauritian textile cluster in Mauritius, which evolved from an export-processing zone (Zeng 2008), and clusters that grow out of special economic zones such as the information and communication technology clusters in Beijing and the electronics and biotech clusters in Shanghai (Zeng, 2011).

3. Industrial clusters in Ethiopia

Like other countries in the world, industrial clusters for micro- and small-scale enterprises are also present in Ethiopia. The most common types of clusters in Ethiopia are natural clusters. Although the exact number of natural clusters in Ethiopia is not known, they are commonly found among labor-intensive manufacturing sectors and are mostly located in urban centers, rural towns and touristic areas. Some examples of such clusters are the footwear cluster in Mercato, Addis Ababa, the metal and wood work cluster in Mekel, the bamboo work cluster in Hawassa and the handloom cluster in Addis Ababa.

There are both dynamic and survival natural clusters in Ethiopia. One example of dynamic natural clusters in Ethiopia is the footwear cluster in Mercato, Addis Ababa. In their study, (Sonobe et al., 2006) identified this cluster as an exceptionally successful case in Africa because of its remarkable recovery from the intense competition from imported Chinese shoes in the late 1990s. The footwear cluster in Addis Ababa is located in the largest open market known as Mercato. The cluster comprises of more than 1500 micro and small scale shoe making enterprises and other related businesses and complimentary activities like input suppliers (soles, leather, shoe accessories), and service providers (repair and maintenance, machinery rent etc.). Shoe producing enterprises in the cluster buy their raw materials, labor supplies and other services like machinery and equipment maintenance and designing from the clusters. They also sell their products through the wholesalers that are also located around the cluster.

Following the cheap imports of shoe from China, the cluster faced fierce competition in the late 1990's. At that time, the number of producers in the cluster was estimated to be only 500 (van der Loop, 2003). The number of producing firms increased substantially after the recovery and reached about 1000 in 2005 (Sonobe et al., 2006) and is currently estimated to be more than 1500. The reason behind the recovery of the cluster is the persistent upgrading efforts made by enterprises in the cluster (Sonobe et al., 2006). A further study by Gebreeyesus and Mohnen (2011) substantiated the upgrading efforts in the cluster due to continuous innovation and learning efforts and using improved quality of raw materials and machinery. Such innovation and learning efforts are facilitated through the existing networks and knowledge linkages in the cluster. The cluster was able to recover despite the absence of support from the government.

As there are dynamic clusters, there are also survival clusters in Ethiopia. One example is the Shiro Meda handloom cluster in Addis Ababa. The cluster which has existed for decades constitutes close to 6000 enterprises, of which 39% are women and the remaining 61% are men (Alemayehu, 2006). This cluster comprises of producers that are of the same ethnic group, migrating from the southern part of the country. The cluster contains the whole value chain of the handloom sector starting from raw material sourcing until the final consumers at the end of the marketing channel are reached. In the cluster, enterprises perform largely in their homes as cottage industries often operated by one person.

A case study conducted on the cluster indicated that, although there are some advantages that enterprises gain from operating close to each other such as the availability of large markets and the flow of tacit knowledge, the cluster is stuck at the initial stage unable to graduate into the next level where rich competitive advantages can be found (Ali, 2007). There are unique features of the cluster that would characterize it as having subsistence and survival enterprises rather than growth oriented micro enterprises. Most of the enterprises in the cluster lack modern management techniques and the ability to organize and continuously improve production in a systematic manner. The business culture in the cluster is also largely based on imitation rather than innovation where the basic knowledge of the business has been transmitted from generation to generation. Other typical features of an industrial cluster, such as high degree of specialization and inter firm cooperation are also weak in the cluster. In general there is low level of trust between entrepreneurs and low willingness to cooperate. According to interviews, the main reason for low level of trust is associated with the culture of imitation that makes enterprises reluctant to share information.

In addition to natural clusters, government created clusters also exist in Ethiopia. Government created clusters especially for MSEs are recent phenomenon in Ethiopia that have begun to be established starting from 2003. These clusters are established with the core intention of alleviating the working premise problems faced by MSEs. A detailed discussion about the types of existing government created clusters in Ethiopia and their characteristics is presented in section 5.

4. Cluster development policies: experience from other countries

Natural clusters are widespread phenomena not only in the developed nations but also in developing economies and can display levels of dynamism and innovation similar to those in industrialized countries. The high-tech industry cluster of Bangalore in India, the wine cluster in Chile and the Sialkot surgical instruments cluster in Pakistan are examples of many successful cases of natural clusters in developing economies. These dynamic clusters have achieved high growth levels, gained a stable foothold in the international market and generated wealth and prosperity at the local level. However, a considerable number of natural clusters in developing countries and especially in Africa are lagging behind, unable to generate the envisaged advantages of clustering. Although generating employment to large number of people, when natural clusters are unable to shift from stagnation to growth, their potential to contribute to the development of local communities remain largely untapped.

The standard rationale for cluster development policies is, therefore, to upgrade lagging natural clusters by promoting the supply of local and regional services that cannot be provided by the market itself.

Based on experience from other countries, four general areas of cluster development policies for natural clusters can be identified. First, cluster policy may emphasize on the benefits of creating co-operative networks and encouraging dialogue between enterprises in the cluster and other agencies. Co-operative networks can help enterprises exchange information, pool resources, design collective solutions to shared problems and develop a strong collective identity. In order to achieve this, most cluster development policies appoint brokers and intermediaries that organize these dialogues. Second and related with the first one, cluster policies can also involve in promoting collective marketing so as to create industrial specialism and raise awareness by generating for example a brand name for the cluster. Third, cluster policy could provide local services for enterprises operating in a specific cluster, such as financial advice, marketing and design services. Such local service provision at cluster level ensures that specific local needs are met. Fourth, cluster policies can identify weaknesses in existing cluster value chains and attract investors and businesses to fill those gaps in order to strengthen the forward and backward linkages.

Besides promoting existing natural clusters, cluster development policies may involve establishing clusters from scratch with the aim of duplicating successful clusters in regions that lack the basis for natural clusters, especially in lagging peripheral regions of developing countries. Although these types of cluster policies are not common, they exist in certain countries such as the cluster-based industrial parks in Senegal and Liberia (Monga, 2011).

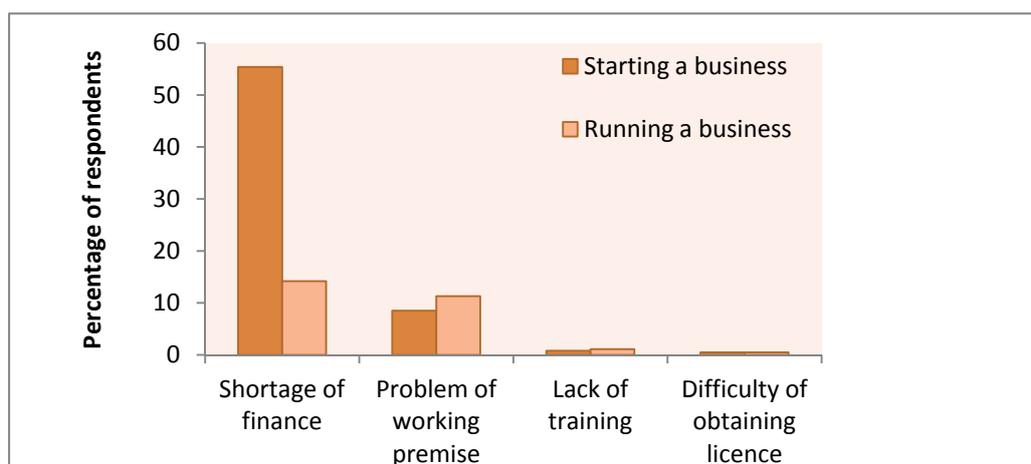
5. Cluster development policies in Ethiopia

5.1 Cluster development strategy of the Government of Ethiopia

In line with the current MSE Development Strategy of Ethiopia, the government has formulated a cluster development strategy in January 2011. The main objective of the cluster development strategy of Ethiopia is to alleviate problems of working and selling premises often faced by MSEs. This is aimed to be done through the construction of standard working and selling premises where a number of enterprises that work on similar and closely related goods can enter and operate. The provision of premises to similar and related enterprises is believed not only to resolve their space limitations but also help create markets, facilitate technology transfer and induce network and collaboration among enterprises. In addition, having MSEs that work on similar and closely related goods in one location is held to provide a ground where linkages with medium and large scale industries can be initiated.

Working premise problem is one of the most frequently mentioned problems by entrepreneurs both for establishing and running their business. According to the 2011 Urban Employment Unemployment survey collected by the Central Statistical Agency of Ethiopia, individuals in urban centers that are planning to open up their own businesses and those that already have one were asked about the main problems that they face for starting and running their business. A total of 72,697 individuals were included in the survey in the urban centers of all the 11 regions in the country. Problems of working premise is mentioned as the most important problem for starting and running a business by 9% and 11% of the respondents respectively (Figure 2). The percentage of respondents who have mentioned working premise as the most important problem for running a business are almost comparable with those who mentioned shortage of finance as the most important problem for running a business (Figure 2).

Figure 2: Problems faced by entrepreneurs for starting and running their business



The implementation of the cluster development strategy can be summarized into the following four core points.

Location

The location of the working premises will be at a reasonable distance from the industrial zones where medium and large scale industries are located. This is in order to facilitate market linkages between MSEs and the medium and large scale companies. In addition, the specified place of production and sales center should be large enough so as to account the further development of enterprises in the specific sector. Moreover, the selected sites shall be favorable for infrastructural expansion.

Selection criteria

Enterprises that would enter into the government created clusters are selected based on the following criteria.

The selection criteria for identifying eligible enterprises are the following:

- Enterprises engaged in the propriety sectors selected by the government.
- Enterprises willing to use energy and space saving equipment collectively or individually.
- Enterprises with good reputation of loan and tax settlements.
- Enterprises with proper record of income and expenses of their business.
- Enterprises that made good use of production and selling premises that were given to them by the government previously.
- Enterprises with selling and working premise problems.

Support packages

The following support packages will be given to enterprises that are operating in the government created clusters.

- Training and information about saving and access to credit.
- Business Development Service (BDS).

- Industry extension services.
- Trainings to upgrade the marketing skills of MSEs and provide information to enable enterprises look for market opportunity independently.
- Linking enterprises with big companies and assisting them to participate in government purchases and bid invitations.

Duration of stay in the clusters

The maximum period that MSEs can operate in the government created clusters is 5 years. Those enterprises that are able to grow into medium-size enterprises will be provided with another working space at the industrial zones of each city. On the other hand, enterprises that do not grow into medium-size enterprises will have to leave the cluster but other supports like provision of finance, training, information and market linkages will continue for another 2 years.

5.2 Issues regarding the implementation of the cluster development strategy

Government established clusters permit greater focus of public resources and allow the provision of support to enterprises more accessible and feasible. However, there are some concerning issues regarding the implementation of the cluster development strategy of Ethiopia.

1. Some of the criteria used for selecting qualifying enterprises that would enter the government created clusters are restrictive. For example, the requirement to have a book of record for income and expenses may exclude a lot of MSEs in Ethiopia without such records for their businesses. Studies also show that most MSEs in Ethiopia start their businesses using own savings or borrowing from friends and families. The selection criterion that requires a reputation of loan settlement may, once again, exclude many enterprises without history of loan from formal financial institutions.
2. It is not clear whether government created clusters would be able to generate the same kinds of advantages envisaged in natural clusters such as market linkages with input suppliers and output buyers and collaborative networks among enterprises in order to maximize opportunities and address common challenges.
3. The limited period of stay in the government created clusters (a maximum of 5 years) raises a question of how enterprises would be able to maintain their market linkages with input suppliers and output buyers when they move to another location after the five year period.

In order to address these issues, case studies were made on government created clusters in Ethiopia that were established in the past.

5.3 Experience of cluster development through the construction of working premises

Cluster development for MSEs through the construction of working premises started in 2003 in Ethiopia. Although the standards of the buildings and the implementation strategy were not uniform across the different regions of the country, a number of working premises were constructed and transferred to MSEs that are engaged in the propriety sectors identified by the government. The procedure to get a working premise was for an entrepreneur to first register at the sub-city stating the type of business and the specific sector that it is planning to engage in and the amount of capital to be invested. The type of business that an entrepreneur can register in are three; sole proprietorship which

will be owned by one person, co-operative society which can contain 10 or more members, and share company which can contain 2 or more people. After registration, the entrepreneur will be given a general business training and consultation at the sub-city in order to prepare a business plan. In the business plan, the entrepreneur either as a sole proprietor or as a cooperative can mention the need for a working premise. Entrepreneurs applying for a working premise can be both new startups and those that have already been in the business. According to interviews with officials at the sub-cities, entrepreneurs that register as co-operative society were more likely to get working premises than sole proprietors and Share Company. Most working premises were provided for free or at a highly subsidized rent with an average monthly payment of 2 birr per square meter. In Addis Ababa alone, where much of the cluster development initiative is implemented, a total of 2075 working premises were constructed from 2004 until 2011 with 23783 MSEs reported to have benefited (Table 2). The total cost of building these premises is estimated to be more than 300 million Birr in Addis Ababa alone.

The working premises are both in the form of G+4 buildings especially for the textile and garment sector and in the form of sheds made from iron sheets for construction, wood and metal work, urban agriculture and food-processing sectors. The working premises for a specific sector can be found located close to each other or scattered here and there based on the availability of open space to construct them. The government considers the working premises that are found close to each other as clusters because enterprises that are operating in similar and closely related activities are operating in them. These types of working premises are constructed for textile and garment, construction and wood and metal work sectors. The scattered working premises are mostly made for food processing and urban agriculture.

Table 2: Number of working premises constructed and transferred from 2004-2011 in Addis Ababa.

| | Working premise | | Beneficiaries | | |
|----------------------------|-----------------|-------------|---------------|--------|-------|
| | Constructed | Transferred | Male | Female | Total |
| Textile and garment | 47 | 39 | 4208 | 2042 | 6250 |
| Construction | 566 | 517 | 4283 | 1344 | 5627 |
| Wood and metal work | 966 | 938 | 3307 | 824 | 4131 |
| Urban agriculture | 127 | 127 | 1201 | 553 | 1754 |
| Food processing | 508 | 454 | 734 | 5291 | 6025 |
| Total | 2214 | 2075 | 13733 | 10054 | 23783 |

Source: Compiled from data by Addis Ababa Micro and Small Scale Enterprise Development Agency

From the field observations, the government created clusters can generally be divided into three types. These are; established clusters, expansionary clusters and relocated clusters.

Established clusters: These are clusters that are constructed from scratch for a certain sector in a certain location. Producers that enter into established clusters usually come from different parts of the city and most of them do not have personal knowledge of each other before moving into the cluster. Enterprises entering into established cluster include both new startups and those that have already been operating in the business in another location. Apart from the producing enterprises, input suppliers and service providers are absent in these clusters. Personal networks and business relationships among producers in established clusters are also very limited but external networks and contractual

relationships with big companies and factories outside of the cluster and even the export market may exist.

Expansionary clusters: These are sheds and buildings that are constructed in the vicinity of the existing natural clusters. Enterprises that enter expansionary clusters are often the ones that used to operate in the natural cluster with a working premise problem. Most of these enterprises may have personal relationships with each other even before moving into the expansionary cluster. Because expansionary clusters are located in the vicinity of the natural clusters, most producers would be able to maintain their existing market with input suppliers and output buyers. The aim of expansionary clusters is to provide spacious and clean working premises mostly to cottage based enterprises that used to operate in their homes at the natural clusters.

Relocated clusters: This is the case where natural clusters are already congested and there is not enough space to build working premises in the vicinity of the existing clusters. As a result, enterprises that used to operate in the natural clusters are given working premises in another location outside the vicinity of the natural cluster. The enterprises that enter into the relocated clusters may have similar characteristics with that of the enterprises in the expansionary clusters in terms of personal relationships and having been stayed in the businesses for a long period of time. The only difference is that relocated clusters may be far away from their existing market of input supplies and output buyers.

5.4 Case Studies of Government Created Clusters

A. Established Clusters

Kirkos textile and leather cluster

The cluster is located at Kirkos sub-city in Addis Ababa at an area commonly known as “Dide Mascha”. The construction of 4 G+4 buildings was started in 2004 and completed in 2006. The cluster is believed to have a capacity of accommodating 1000 enterprises, but currently there are only 30 enterprises that are operating in the cluster. The cost of each building was estimated to be 1 million birr by the 2004 price. Enterprises that are engaged in textile, garment, weaving and shoe making activities have entered into the cluster from different parts of the city. Although few are new startups, most of the enterprises in the cluster were operating in another location by either renting a working premise or working in sheds that was provided by the government.

According to field observation, most of the premises are empty. Although the cluster is located close to the main road, there are no input suppliers and output buyers around the cluster. This is one of the reasons mentioned by producers interviewed and the government officials at the sub-city, as to why only few enterprises are currently operating in the cluster. Another reason is because the infrastructural facilities of the buildings like electricity and water were not installed in time.

Box 1: An enterprise at Kirkos Cluster that sell its products directly to shop owners at Mercato

Misgana shoe production is an enterprise owned by a young woman named Misgana. The enterprise started its operation in 2008 with an initial capital of 1000 birr. It used to operate in another location around Bole but due to the availability of cheap and spacious working premise it has moved to Kirkos textile and leather government created cluster in 2010. The enterprise has 4 permanent employees including the owner and 4 temporary employees. The enterprise is not currently paying any rent for the 9 m² working premise that it is operating in. The enterprise is the only shoe producing enterprise in the cluster.



The enterprise buys its inputs from the central market, Mercato. It also sell its products at Mercato by going door to door around the shoe selling shops asking if they would need the types of shoes produced by the enterprise. The owner mentioned that this kind of market is hard to break in because there are already large numbers of small producers operating at Mercato who already have established long term business relationships with the shop owners. In addition, the shop owners have better bargaining power, in which case the enterprise would sometimes be forced to sell its products at a lower price. When asked about the appropriateness of the location of the business, the owner replied that the location is good for production but it needs a selling premise in another location in order to be able to sell products directly to final consumers.

In the absence of input suppliers around the cluster, enterprises buy their inputs from the main markets in the city like Mercato and Shiro Meda . The marketing channels used by enterprises in the cluster to sell their output are three types. The first one is selling directly to shop owners that are located at the main markets of Mercato and Shiro Meda. According to interviews, this kind of selling mechanism is hard to break in as there are already large numbers of other producers that are operating close to the main markets and have long-term business relationships with the shop owners. In addition, enterprises in the cluster sell their products by piece without receiving orders beforehand; as a result the rejection rate by the shop owners is high. Enterprises that sell their products through this way are mostly new startups that began their business after moving into the cluster (Box 1).

The second type of marketing channel used by enterprises in the cluster is by receiving big order from factories, hotels and various companies that operate outside of the cluster. These kinds of enterprises get orders either through their established business relationships even before moving into the cluster, by competing in open tenders that are announced in magazines, and by advertising their products through brochures and trade fairs. Most enterprises that operate in this kind of marketing channel are not new startups and are familiar with the business either as former employees or having been operating their own business in another location (Box 2).

Box 2: An enterprise at Kirkos Cluster that sell its products by receiving orders from other companies outside of the cluster



Nina garment is an enterprise that was established in mid-2010 by three people (two men and one woman) with an initial capital of 40,000 birr. The enterprise has 32 permanent and 10 temporary employees. It has only been two weeks since the enterprise has moved into the Kirkos government created cluster. The main reason for entering the cluster is because the working premise that they used to operate in was not appropriate (it was leaking, not spacious and the rent was expensive). They have now obtained a 170m² working premise in the cluster in which they will be paying a monthly rent of about 340 birr. They buy their raw materials from Mercato. The main marketing channel used by this enterprise to sell its products is by receiving big orders from factories, hotels and various companies that operate in different parts of the city. Such

markets are found by competing on tenders and through middle men who are paid commissions by the enterprise when they bring big orders. Such kind of marketing channel has enabled the enterprise to keep its former customers even after moving to the cluster. Although recently moved to the cluster, the owners mentioned that they have already initiated discussions with another garment producing enterprise in the cluster to share orders in order to accommodate big markets that are beyond their capacity.

The third type of marketing channel used by producers in the cluster is to use their own selling premises that are usually located in another place outside of the cluster. These kinds of enterprises may have one or more selling premises in other locations where they can sell their products and receive orders from final consumers (Box 3).

Box 3: An enterprise at Kirkos Cluster that sell its products through own selling premise that is located outside of the cluster.

Yoas Tibeb is a woman owned enterprise operating at Kirkos textile and leather cluster. The enterprise is engage in the production of hand woven products which it sells both domestically and for the export market. It was established in 2003 with a starting capital of 70,000 birr. The enterprise used to operate in another location but recently entered the cluster 4 months ago. The main reason for entering into the cluster was due to the availability of spacious and cheap



working premise. The enterprise has 67 employees of which 40 are permanent. The enterprise is currently operating in the 170m² premise but is asking for additional space in order to accommodate more workers. The main marketing outlet of the enterprise is the various trade fairs organized by the sub-city, advertisement on own website and through women exporters association. In addition, the enterprise has its own selling premise which it can show its products and sell it to the final customers and receive individual based orders. The enterprise buys its inputs from Shiro Meda and Mercato. Even if there are no output buyers around the cluster, the enterprise is able to sustain its market in the new location because of the wide variety of marketing outlets available.

In general, the level of linkage and collaborative networks among enterprises in this cluster is very low. However, there are few incidences where enterprises that receive big orders from companies sub-contract out certain parts of their products to other enterprises in the cluster.

Jackros construction, wood and metal work cluster

Another case of established cluster is the Jackros construction, wood and metal work cluster. This cluster is located in an industrial zone in the Bole sub-city in Addis Ababa. It was established in 2003 with more than 100 sheds made from iron sheets. The cluster contains 82 enterprises that are both new startups and those who used to operate in another location. Like the Kirkos cluster, there are no input suppliers and output buyers in the cluster. Because the cluster is located in an industrial zone, there are a number of big industries around the cluster like iron sheet factory, medicine factory, garment factory, and big warehouses of importers and exporters.

Box 4: Marketing channels used by enterprises at Jackros construction, metal and wood work cluster

Ehitimamachoch construction is a cooperative enterprise that is owned by 11 women engaged in the construction sector. It was established in 2008 at Jackros construction, metal and wood work cluster with an initial capital of 100,000 birr. The company has 6 permanent employees. The main product of the enterprise is blockades for construction of houses. The working premise of the enterprise is 240 m² with a monthly rent of 480 birr. The main marketing outlet for the enterprise is the Government Housing Agency that provides inputs as well as orders for the products.

Addis Loyal Furniture is another woman owned enterprises operating in Jackros construction, metal and wood work cluster. The enterprise was established in 2003 with an initial capital of 46,000 birr. Before moving into the cluster, the enterprise used to operate in another place. Because of the availability of cheap working premise, it moved into the cluster in 2004. The enterprise has 10 permanent and 9 temporary employees. The main product of the enterprise is wood work home furniture. The enterprise buys its inputs from the central market, Merkato. To sell its products, the enterprise uses its show and selling rooms that are located outside of the cluster.

One of the unique features of the Jackros cluster is the strong linkage that it has with the Housing Agency of the Government of Ethiopia. The agency provides enterprises in the cluster with the appropriate inputs as well as orders for government-run constructions both in Addis Ababa and other parts of the regions. The agency has an office in the cluster where it can closely monitor the quality of the work. Enterprises that are linked with the housing agency are the ones that are operating in the construction sector. The few enterprises that operate in the wood and metal work sector don't have much linkage with the housing agency but have their own showing and selling premises in another location outside of the cluster where they can access customers and receive orders. The level of linkage between enterprises is small although there are incidences where some enterprises rent-out some of their machineries to others operating in the cluster.

B. Expansionary Clusters

The Gundish Meda Textile and Garment Cluster

The Gundish Meda textile and garment government created cluster is located in the vicinity of the existing natural handloom cluster at Shiro Meda. The natural handloom cluster at Shiro Meda, as mentioned in section 3, has existed for many decades. Enterprises in the natural cluster largely operate in their homes and have a working premise problem that affects their productivity and product quality (Alemayehu, 2006). In order to alleviate the working premise problem of enterprises, nine G+4 buildings were constructed within a walking distance from the market place of the natural cluster in 2003. The total cost of constructing all the nine buildings was estimated to be more than 10 million birr by the 2003 price. The nine buildings in total are estimated to accommodate more than 2000 enterprises. Although the exact number of enterprises that are currently operating in the cluster is not

known, from the field observation, most of the premises are empty and in some instances they are abandoned with only the looms (machineries) standing.

Despite the availability of input suppliers and output buyers in close vicinity (a walking distance), the constructed buildings failed to attract producers and have remained largely empty. According to interviews made with producers in the cluster and the observation made during field visits, the following reasons are pointed out as possible explanations. The first reason is regarding the way the working premises were given to enterprises. The premises were given for free; which failed to attract the “right” enterprise that would be willing to pay a certain amount of money for the premise. Instead other people who may or may not have an actual business plan took the premise with the intention of renting it to a third party. Second, attention was not given to the existing production organization of the handloom sector. The handloom sector in general and the Shiro Meda handloom natural cluster in particular comprises of enterprises that are owned and operated mainly by one person. However, the working premises were given to enterprises that would form a cooperative and work together as a group. This again failed to attract the large number of owner-operated one-person enterprises in the natural cluster that may actually have a working premise problem. The third reason why the premises are largely empty is because of lack of selling premises where enterprises can access markets and sell their products directly to final consumers. The most common marketing channel in the cluster is to sell ones output to the standing shops around the cluster. This is a saturated market because there are already large numbers of enterprises in the cluster that work from their homes and have long-term business relationships with the shop owners. For new startups and producers that moved to the cluster from another location, such market is often hard to penetrate.

C. Relocated Clusters

The Ethio-International Footwear Cluster Cooperative Society (EIFCCOS)

The Ethio-International Footwear Cluster Cooperative Society (EIFCCOS) is a Cooperative society that has 1088 members including micro, small and medium scale shoe producing enterprises, retailers, traders and other related commercial merchandisers. Members of the cooperative society are those that used to operate at the Mercato footwear natural cluster. The aim of the cooperative society is to have one vertically integrated production unit that would be able to produce 12,500 pairs of shoes per day to be sold largely to the export market. For this, 65.3 million birr worth of shares are sold for the various components of the production unit across the value chain of shoe production.

The government provided the cooperative with working and selling premises in 2003 at a place which is 20 km away from the natural cluster at Mercato. The premises are made out of 6 G+4 buildings that were constructed with a total cost of 70 million birr. 166 producing enterprises and 26 input supplies are currently operating in these premises. Enterprises in the premise pay a monthly rent of 2.5 birr per square meter.

Although the long run objective of EIFCCOS is to have one vertically integrated company, currently member enterprises that have moved to the premises from the Mercato natural cluster are operating individually by producing and selling their own products. This gave us a good opportunity to analyse the appropriateness of the location for the relocated enterprises. Accordingly, four enterprises that are operating at the premises were interviewed.

Enterprises that were interviewed mentioned that the premises at EIFCCOS are spacious and clean and the rents are affordable compared to their previous premises at Mercato. However, the fact that the location is far from the natural cluster at Mercato has created the following problems in the operation of their business. The first and most important problem mentioned by the enterprises is lack of specialized and skilled labor in close vicinity, which is incurring the enterprises an extra cost in order to bring one from another location. The specialized labor that has the skills in shoe production is mostly located around the natural cluster at Mercato. The daily cost of transportation for one laborer to

come from Mercato and work at EIFCOS is around 10 birr. An enterprise at EIFCCOS has 5 workers on average. It means that an enterprise will incur an extra cost of 300 birr per 6 days of work for bringing in laborers to work in its enterprise. In addition, absence of specialized laborer across the value chain can affect the whole production system in enterprises.

The second problem is lack of appropriate inputs suppliers at EIFCCOS that are able to meet the demands of the producers. This has forced the producers to go back to Mercato to buy most of their inputs, incurring them extra costs. The third problem is lack of output buyers in close locations. The marketing mechanism used by enterprises operating at EIFCCOS is to sell their products by going around the shop owners at the Merkato footwear natural cluster. Even if these enterprises have established long term business relationships with the shop owners when they used to work at Mercato, the fact that the shop owners are now located far away from the production site is incurring enterprises extra cost to transport the produced items.

Two additional enterprises that are members of EIFCCOS but still operating at Mercato natural cluster were interviewed. In the interview, they were asked as to why they have not yet moved to the production site at EIFCCOS. Even if these enterprises believe that they can benefit from EIFCCOS in the long run when it meets its objective of having an integrated production system and sell its products largely to the export market, at the current state they are reluctant to move into the new location because of lack of specialized labor, input supplies and output buyers around the cluster.

5.5 Lessons from the Case Studied of Government Created Clusters

Based on case studies of existing government created clusters in Ethiopia, the following lessons are drawn.

Implementation

The following problems were identified when building the premises and allocating them to enterprise.

- When building the premises, limited attention was given to the overall economic environment of the location, the existing natural clusters around it, and the kinds of available market-outlet that entering enterprises can use.
- The design of the existing working premises do not take into consideration the existing working conditions of the enterprises and of the specific sector. For example, some of the sheds are made from iron-sheets that are prone to different dangers like electric shocks.
- In some of the premises, physical infrastructure like electricity and water were not installed in time which made many premises left standing empty.
- Premises were given for free or at a highly subsidized rent. This opened the floor for individuals who would not actually be using the premise but plan to rent it to a third party.
- Priority for using the premises was given for those enterprises that were operating as cooperatives. This excluded a number of individually-operated enterprises who could actually be using the premises.

Location of the working premise and market linkages

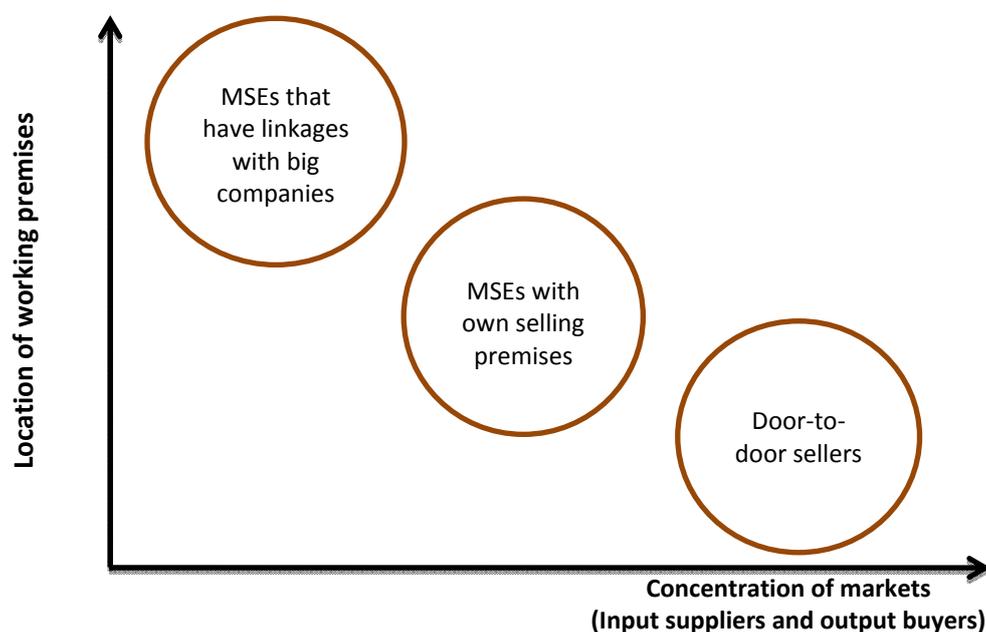
The second lesson drawn is regarding the location of the working premise and the market outlet that enterprises use. Based on the case studies, enterprises can generally be classified in to three types depending on the type of marketing channel they use to sell their products.

- Enterprises without own selling premises but sell their products on piece rate to shop owners that are located in big markets elsewhere or around natural clusters.
- Enterprises with own selling premises to sell their products and receive orders.
- Enterprises without own selling premises but sell their products by receiving big orders from companies located elsewhere.

The first types of enterprises are usually small in size having few employees. Most MSEs in Ethiopia sell their products this way, by going door-to-door around shop owners by carrying samples. Having established networks and long-term business relationships with shop owners is crucial to sell once product this way. As a result, this kind of market is often difficult to penetrate, especially for new start-ups. For this kind of enterprises, it is important to have their production cite close to the shop owners in order to monitor the existing demand (fashion, design) and be able to produce their product accordingly. In addition, the vicinity market share should be large enough in order to support producers' daily sales. Since these kinds of enterprises do not produce in bulk, they also do not buy inputs in bulk but only when the need arises. As a result, their location close to input suppliers is also important. In general, these kinds of enterprises will lose their existing forward and backward linkages with input suppliers and output buyers if the production site is located far away from the existing market. This was what was seen in the case of the EIFCCOS cluster. In addition, even if the production site is close to the market, enterprises may not be able to establish linkages with output buyers (shop owners) if they are new startups because it usually takes time to establish such linkages. This was what was experienced in the case of the Gundish Textile and Garment Cluster. Look at figure 3 below for the relationship between location of working premises and concentration of markets for the different types of market outlets.

The second types of enterprises are the ones that have their own selling premises in another location other than the production site. The selling premises can be located either around natural clusters or in other big markets and shopping malls. They use their selling premises to sell their products but also receive mostly individual based orders from final customers. For these kinds of enterprises, the production cites do not necessarily have to be tied with the market. But, since these enterprises do not always receive big orders and may not produce in bulk, the production cite should not be very far from the main market so as to be able to buy inputs easily. In general, these kinds of enterprises may not lose their existing linkages with input supplies and output buyers as long as the production site is located at a reasonable distance from the main market.

Figure 3: Location of working premise and concentration of markets



The third type of enterprises, just like the first types, don't have their own selling premises, but have market linkages with big companies in different location in which they receive relatively big orders. These kinds of enterprises have large number of employees that enable them to handle large orders. They also buy inputs in bulk. For these types of enterprises, their market outlet is not necessarily tied to the production cite. But these enterprises can benefit if they are located close to other enterprises that produce similar and closely related goods because this could create an opportunity for even bigger market through large orders from big companies. In general, these kinds of enterprises are the least to be affected by having their production cite far away from input supplies and output buyers. This was the case for a number of enterprises at the Jackros construction, metal and wood work cluster and the tailoring and weaving enterprises at Kirkos textile and leather cluster. However, most enterprises in the Jackros cluster became successful due to the booming construction sector which accounts the majority of the orders placed on the cluster, particularly through public procurement practices. Excessive dependency on such market, however, may compromise the sustainability of the cluster growth. Collective efforts to diversify products and expansion to regional markets are most important.

Extent of trust and collaborative networks

The third lesson drawn from the case studies is whether the types of advantages that are commonly seen in natural clusters such as the development of trust and collaborative networks that are essential to address common opportunities and threat also exist in the government created clusters. In many of the case studies of the government created clusters, such kind of networks do not exist. However, there are some instances where some enterprises, especially those that receive relatively large orders from companies and factories elsewhere are able to initiate linkages with other enterprises in the cluster by giving out a sub-contracts for certain parts of the products. Although such linkages are low, it could be one area of intervention in cluster development policies by either giving training or consultancy services on the advantages of collaboration and by appointing brokers and intermediaries that would initiate and organize dialogues between enterprises in the cluster.

Issues regarding the fixed time of stay in government created clusters

The fourth lesson drawn from the case studies is regarding the fate of enterprises after 5 years when they will have to leave the government created cluster and move elsewhere. The main question is whether they will be able to maintain the market linkages that they have established in the government created clusters when they move to another location such as an industrial zone. This question was raised to the enterprises that were interviewed in the different government created clusters. They were first asked if they know about the new cluster development strategy which states that they can only stay in the premise for five years. All of the enterprises interviewed have information about the period of stay in the premise¹. They were then asked how they would be able to maintain their market linkages if they move to another location. The answer to this question differs depending on the types of marketing channels used by enterprises. Those enterprises that have their own selling premises and those that sell their products through orders from other companies responded that they will be able to maintain their current customers even if they move to another location because the marketing outlet that they are using, to begin with, is not tied to their production cite. But for those enterprises that do not have their own market outlets except for the shop owners around natural clusters and in big markets, responded that they may lose their market unless they have their own selling premises.

¹ The 5 year period of stay does not apply to enterprises at EIFCCOS. The maximum stay at EIFCOOS is 20 years.

6. Conclusion

This study examines the existing government intervention in cluster development in Ethiopia. Since 2003, the government of Ethiopia has followed a top-down approach of cluster development by constructing working premises and giving it out to MSEs that operate in similar and closely related sectors at a highly subsidized rent. The provision of premises to similar and related enterprises is believed not only to resolve their space limitations but also help create markets, facilitate technology transfer and induce network and collaboration among enterprises. In addition, having MSEs that work on similar and closely related goods in one location is held to provide a ground where linkages with medium and large scale industries can be initiated. In the capital city Addis Ababa, where much of the cluster development initiative is implemented, more than 2075 working premises are constructed and transferred from 2004 until 2011 where 23783 MSEs are reported to have benefited. The total cost of building these premises was estimated to be more than 300 million Birr.

The case studies conducted on existing government created clusters reveal that although there were few positive outcomes, in general it was challenging to create the envisaged advantages of clustering from the intervention. This has to do with a number of reasons; 1. The selected production locations did not take into account the overall economic environment and the types of available market outlets; 2. When building the premises, limited attention was given to the production organization and working conditions of enterprises and specific sectors; 3. Appropriate incentive structures were not put in place to attract potential enterprises that could actually benefit from the intervention; 4. Basic infrastructure like water and electricity were not provided in time. As a result of these, most of the premises are unoccupied or abandoned even if they were given out at highly subsidized rents.

The functional elements of clustering such as trust, collaboration and tacit flow of knowledge usually takes time to develop and needs an environment that is based on market forces. A top-down approach to cluster development should therefore be exercised with caution as the risks of failure are high because it is usually beyond government's capacity to have a perfect understanding of the market situation. However, governments can play an active facilitative role in the formation, growth, or scale-up of emerging clusters by providing basic infrastructure like road and electricity, supporting institutions and building a conducive business environment. "Inevitably, it is easier to devise policies for a functioning cluster and devilishly hard to call a cluster into existence, especially when the essential industrial nuclei are difficult to identify" (Zeng, 2011).

References

- Alemayehu, W. (2006). *Unleashing the potential of MSMEs in Ethiopia: Diagnostic study for the handloom cluster*, UNIDO.
- Ali, M. (2007). *The Competitiveness and Viability of Cluster Based Cottage Industries: The Case of Handloom Sector in Ethiopia*, EDRI working paper series.
- Boschma, R. A. (2005). Proximity and innovation: a critical assessment, *Regional Studies* 39: 61–74.
- Gebreeyesus, M. and Mohnen, P (2011). *Innovation performance and embeddedness in networks: evidence from the Ethiopian footwear cluster*, UNU-MERIT Working Papers ISSN 1871-9872
- Martin, R., and Sunley, P. (2003) Deconstructing Clusters: Chaotic Concept or Policy Panacea? *Journal of Economic Geography*, 3: 5-35.
- Monga, C. (2011). *Cluster-based industrial parks: A practical framework for action*, Memoire.
- Schmitz, H. and Nadvi, K. (1999) Clustering and Industrialization: Introduction. *World Development*, 27: 1503-1514.
- Sonobe, T., Akoten, J., & Otsuka, K. (2006). *The development of the footwear industry in Ethiopia: How different is it from the East Asian experience*. Mimeo, Foundations for Advanced Studies on International Development
- UNIDO, (2010). *Cluster Development in Ethiopia: achievements and lessons learned*.
- Van der, L. (2003) *Industrialization, value chain and linkages; the leather footwear sector in Addis Ababa, Ethiopia*, Working Paper, Institute of Social Studies, Netherlands.
- Zeng, D. (ed.) (2008). *Knowledge, technology and cluster-based growth in Africa*, World Bank, Washington DC.
- Zeng, D. (2011). *How Do Special Economic Zones and Industrial Clusters Drive China's Rapid Development?*, Policy research working paper, 5583, World Bank.

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INDEXING TERMS

Micro- and small-scale enterprises

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Ethiopia

Cluster development programs have become increasingly widespread tools in fostering innovation and growth of a competitive private sector in developing countries, including Ethiopia. As part of the MSE Development Strategy of the Government of Ethiopia, industrial clusters are considered as the main tool for spurring income and employment growth among micro- and small-scale enterprises. The purpose of this study is to analyze government's interventions in cluster development in Ethiopia and discuss some of the concerning issues regarding these interventions. The study summarizes experience of cluster development policies in the past, analyzes the challenges and provides possible areas of government action to strengthen clusters.