

Industrial Clusters Promotion as a tool for private sector development: The UNIDO experience in Ethiopia

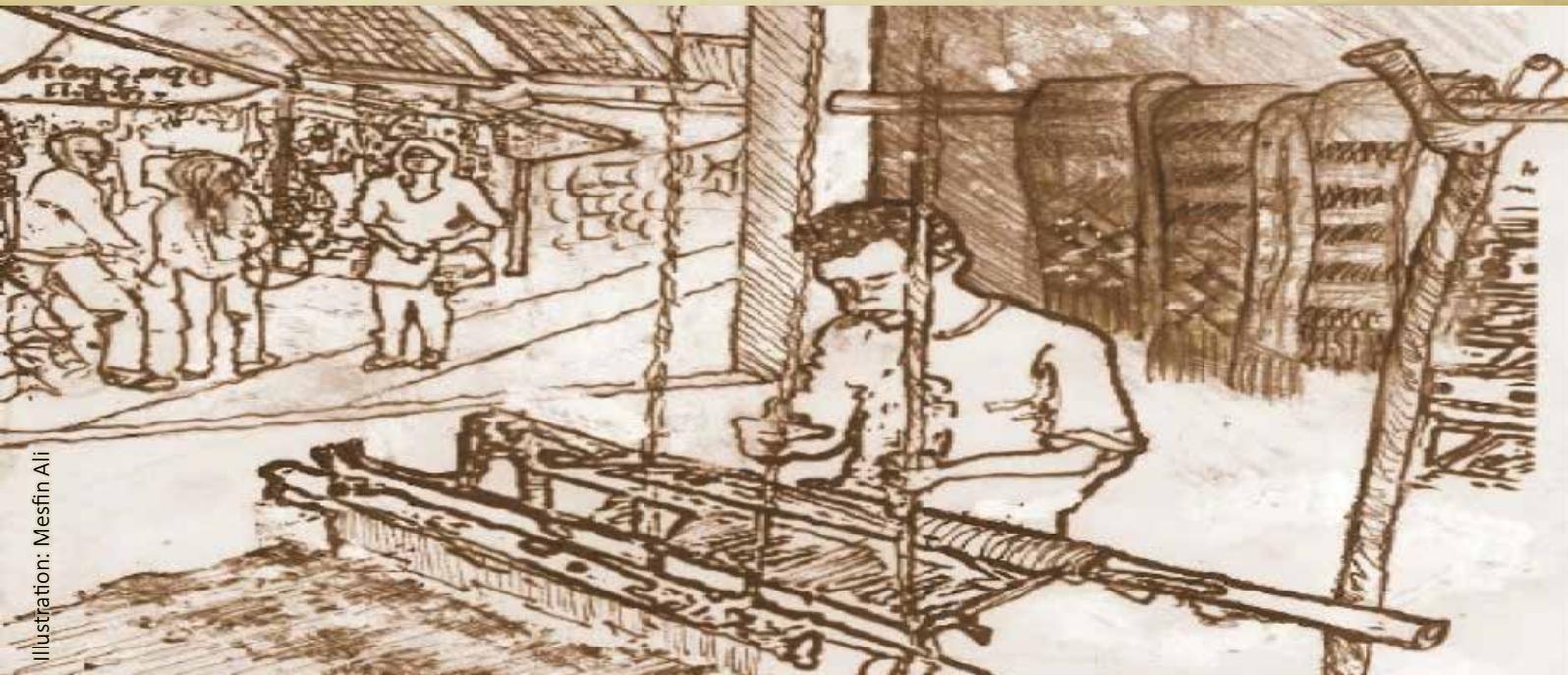


Illustration: Mesfin Ali

Policies aimed at boosting the interaction and cooperation of economic actors in industrial clusters might represent a crucial strategy for industrial upgrading and development in poor countries. This policy brief discusses some recent industrial cluster programmes carried out by UNIDO in Ethiopia and highlights the main advantages of cluster policies and the lessons learned.

ADVANTAGES OF INDUSTRIAL CLUSTERS AND THE CASE FOR POLICY INTERVENTION

Industrial clusters, which are defined as the geographic concentration of economic activities producing similar and closely related goods, give scale advantages for MSEs providing relatively easier and cheaper access to resources such as credits and inputs. 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*).

Often clusters arise in the economic landscape of several countries in the world as a result of spontaneous agglomeration forces which lead to the co-location of producers of similar products. The reason why industrial clusters have received considerable attention by policymakers in every corner of the world is due to the established fact that these agglomerations provide a wide range of advantages to the enterprises that belong to them (Schmitz and Nadvi, 1999):

- 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 facilitates easy *flow of knowledge and information exchange*;
- 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 a cluster. The available large markets within clusters also provide consumers greater choice and convenience by reducing search cost.

The overall effects of clustering might result in a significant increase in the competitiveness and profitability of enterprises, in particular MSEs which, at least partly, overcome in this way the dis-advantages of their small size.

The rationale for cluster initiatives lies on the existence of several constraints and 'market

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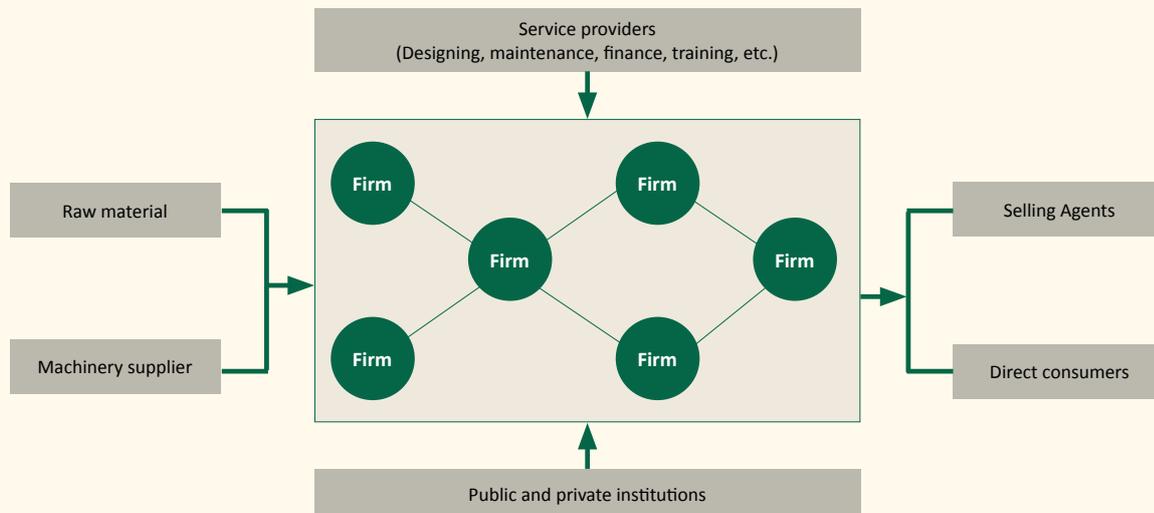
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FIGURE 1: EXAMPLE OF COMPOSITION OF AN INDUSTRIAL CLUSTER



failures' (for example, coordination problems and inability of actors to initiate or sustain inter-linkages among clusters' actors; information asymmetry; suboptimal knowledge creation and diffusion) that can prevent spontaneous clusters to emerge or to reach their optimal size. These constraints are particularly severe in developing countries where clusters are typically at an 'embryonic' stage and present a large development potential.

TYPES OF INDUSTRIAL CLUSTERS IN ETHIOPIA

The most common types of clusters in Ethiopia are *natural clusters*. Natural clusters spontaneously grow out of the concentration of economic activities based on market forces over a long period of time. 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 Addis Ababa; the metal and wood work cluster in Mekele; the bamboo work cluster in Hawassa; and the handloom cluster in Addis Ababa. The other type of clusters are *government created clusters* that are induced through deliberate policy actions such as the establishment of industrial parks and export processing zones to attract certain industries to specific locations. Government created clusters for MSEs are recent phenomenon in Ethiopia that have begun to be established starting from 2003.

CLUSTER DEVELOPMENT PROGRAMS IN ETHIOPIA

Cluster development program has become an increasingly widespread tool in fostering innovation and growth of competitive MSEs both by the government of Ethiopia and various international organizations such as UNIDO and the World Bank. These programs are run on natural and government created clusters.

UNIDO cluster development initiative on natural clusters

The main objective of cluster development

approach of UNIDO is to initiate joint actions among enterprises in the cluster and various institutions in order to embed a spirit of collaboration and trust that could lead to "a dynamic cluster in which actors can use collective power to innovate their ways of doing business". In order to achieve this, UNIDO's cluster development initiative rely on the engagement of facilitating agents, known as *cluster development agents* (CDAs), who operate as impartial brokers among cluster actors and help producers share information and coordinate their endeavors. Through the employment of CDAs, the cluster development approach of UNIDO try to initiate assistance to natural clusters by: 1) building trust in order to enable cluster stakeholders with different or conflicting interests to work together; 2) fostering cluster governance, often through the establishment of a formal governing body, in order to ensure the sustainability of cluster initiatives; 3) promoting business networks among entrepreneurs who share commercial interests and work together towards shared objectives; 4) institutional capacity building in order to enhance dialogue and collaboration between entrepreneurs and supporting institutions and strengthen the capacity of supporting institutions to provide efficient and effective services.

Following this approach, UNIDO firstly launched a cluster development project in Ethiopia from 2005 until 2009 on MSEs. The program identified four natural clusters in Ethiopia; the Gullele Handlooms Cluster, the Readymade Garments Cluster; the Merkato Leather Footwear cluster and the Mekelle Metal and Wood Works Cluster. See *Box 1* for some of the interventions by UNIDO and the results. A second cluster initiative was carried out in 2010-2013, jointly with FAO, as a fundamental component of a larger programme aimed at boosting the Ethiopian edible oil value chain, see *Box 2*.

Lessons learned from the cluster development approach of UNIDO in Ethiopia:

The interventions have highlighted the need

for having sector specific interventions that would trigger the active participation of stakeholders. The assignment of CDAs to each specific cluster further insures the assessment of the specific needs of each cluster and to have tailored interventions accordingly. Since UNIDO's methodology of cluster development is largely based on strengthening trust, the commitment of CDAs throughout the period of the project enabled the development of trust with the local community including the main beneficiaries, clustered enterprises. The strong involvement of public-sector institutions in the program contributed for trust and governance-building in order to insure the continuation of the cluster development initiatives once the project has phased out. In addition, the close collaboration between public and private sector stakeholders in the project helped to draw a joint plan and pooled efforts and resources together that were essential for an efficient delivery of various services and supports to enterprises. The cluster development program by UNIDO also worked closely with various support institutions. By supporting and building the capacity of various support institutions, the project was able to insure the delivery of problem solving and quality services to enterprise. The more recent 'Ethiopia Edible Oil Value Chain Enhancement' programme suggests the importance of combining cluster development initiative with policy actions aimed at promoting agro-business value chains (see UNIDO 2013 for more details).

Cluster development strategy of the Government of Ethiopia

In line with the current MSE Development Strategy of Ethiopia, the government formulated a Cluster Development Strategy (CDS) in January 2011. The main objective of the CDS is to alleviate problems of working and selling premises often faced by MSEs 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. According to the CDS, various support packages will be given to MSEs operating in government built premises such as training and information about saving and access to credit, business development services, industry extension services, training and linking enterprises with big companies. See *Box 3* for the nature and types of government created clusters.

Lessons learned from government cluster development policy: Case studies conducted on existing government created clusters reveal that although there were few positive outcomes where the working premise problem of enterprises were solved, in general it was challenging to create the envisaged advantages of clustering from the intervention. Despite the highly subsidized rent and in some cases free

BOX 1: CLUSTER DEVELOPMENT INTERVENTIONS BY UNIDO IN ETHIOPIA: SELECTED EXAMPLES

Technology upgrading in Addis Ababa Ready Made Garment Cluster

The ready-made garment cluster in Addis Ababa comprises of 26 large-scale and more than 4000 small scale firms producing garment, embroideries and knitwear. Poor access to modern and appropriate machinery and equipment was identified as the main problem facing enterprises in the cluster. In order to facilitate technology up-grading, workshops were held with firms in the cluster and various equipment suppliers in order to facilitate network formation and raise the awareness of producing firms about the available technologies. As a result, increasing interest and orders in machinery and equipment from machinery suppliers was seen in the cluster. In addition, business development services were provided by the supplier in terms of providing training and advice related with the new technology (UNIDO, 2010).

Skill upgrading in Addis Ababa handloom cluster

The handloom cluster in Addis Ababa comprises of weavers that have migrated from rural areas of the country who have acquired the skills and know-how through informal and on the job trainings. It was identified that enterprises in the cluster lack product development skills and produce traditional cloths with little innovation, product diversification and value addition. In order to address the issues related with skills, a one month skill-upgrading training was given in the areas of raw material selection, and development of new products and design for selected enterprises in the cluster. As a result of the training, more weavers became aware of the need to diversify their product range and improve their designs in order to remain competitive (UNIDO, 2010).

Network and subcontractor development in metal and wood work cluster in Mekelle, Tigray

The metal and wood work cluster in Mekele, Tigray includes more than 250 enterprises and 24 cooperative associations. The main products of the cluster include household equipment, office furniture, agricultural implements, construction materials, and simple machines. The cluster experienced an exponential growth in the period 2001 to 2005 due to public procurement measures and the growing demand for machinery fuelled by a boom in agricultural production. Starting from 2005, however, the cluster underwent significant decline mainly due to shrinking market access. In addition, enterprises in the cluster faced increasing difficulties in meeting quality requirements which excluded them from participation in tenders and public procurement. In order to help the cluster regain competitiveness, UNIDO promoted the development of networks among enterprises in the cluster and initiates subcontracting agreements with one of the largest manufacturers of metal products in Ethiopia, the Mesefin Industrial Engineering (MIE). MIE provided training within its facilities to MSEs in welding, drawing, design and quality control among others (UNIDO, 2010).

BOX 2: 'ETHIOPIA EDIBLE OIL VALUE CHAIN ENHANCEMENT' PROGRAMME: A SHORT DESCRIPTION

Ethiopia has huge potential for scaling up its production of edible oil: favourable agro-climatic conditions for increased oil seeds cultivation, the labour intensive nature of the sub-sector, conducive business environment, the willingness of the oil seed crushers to work at full capacity and the high local demand. Despite this potential however, the edible oil processing industry remains underdeveloped. Main constraints are: low production, poor quality of seeds, inadequate trading infrastructure and poor agro-processing facilities, weak business development services for upgrading the processors and limited access to local and international markets. Weak linkages among the chain's actors and lack of working capital also constitute major obstacles. A Joint-Programme was carried out by UNIDO, ILO and FAO - sponsored by the MDG-F fund – between 2010 and 2013 with the following goals: "enhance the sustainable supply of oil seed raw material at desired quantity and quality, promote efficient processing capacity and improve the access to markets"

The programme was conducted in several districts in two regions; Oromya and Amhara and focused on two high-potential oil seeds; niger seed and linseed.

The cluster initiative was targeted to edible oil processors and several measures were undertaken in order to improve their technological and entrepreneurial capabilities, establish a formal organization for carrying out collective actions and investments and improve the quality of products and market access (UNIDO 2013).

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BOX 3: TYPES OF GOVERNMENT CREATED CLUSTERS IN ETHIOPIA

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 to the cluster. Enterprises entering these clusters include both new startups and those that have already been operating in the business in another location. Input suppliers and service providers are absent in these clusters. Personal networks and business relationships among producers in 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. One example of established clusters in Ethiopia is Kirkos textile and leather clusters (Ali, 2012).

Expansionary clusters: These are sheds and buildings that are constructed in the vicinity of the existing natural clusters. The aim of expansionary clusters is to provide spacious and clean working premises mostly to cottage based enterprises that used to operate in natural clusters. Most of the enterprises that enter into expansionary clusters may have personal relationships with each other even before moving into the cluster. Because expansionary clusters are located in the vicinity of natural clusters, most producers would be able to maintain their existing market with input suppliers and output buyers. The Gundish Meda Textile and Garment Cluster is one example of an expansionary cluster (Ali, 2012).

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. The Ethio-International Footwear Cluster is an example of a relocated cluster from the Mercato natural footwear cluster (Ali, 2012).

rental, most of the premises stand empty either because enterprises refused to enter into the premises from the beginning or left them after operating in them for a while. This has to do with at least the following three reasons. First, the selected production locations didn't take into account the overall economic environment of the locations and the availability of market-outlet that entering enterprises can use. Second, when building the premises, limited attention was given to the production organization and working condition of enterprise and specific sectors. Third, the types of advantages that are commonly seen in natural clusters such as the development of trust and collaborative networks are lacking in most of the government created cluster.

CONCLUSION AND POLICY IMPLICATION

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 might be high, in particular if the aim is to 'generate' clusters from scratch via policy interventions. However, cluster policies can play an active facilitative role in the formation, growth, or scale up of emerging and existing natural clusters by providing basic 'hard' infrastructure like road and electricity and crucial 'soft' infrastructures such as supporting institutions, resources for building trust and cooperative efforts and building a conducive business environment. As experienced from the cluster development program of UNIDO, cluster policy may emphasize on the benefits of creating cooperative 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. Cluster policies can also involve in promoting collective marketing so as to raise awareness by generating for example a brand name for the cluster. Cluster policy could further 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. Public policies can greatly contribute also by identifying weaknesses in existing cluster value chains and attract investors and businesses to fill those gaps in order to strengthen the forward and backward linkages. However, it is crucial to take into account the possible heterogeneity in enterprise performance, capabilities and production history and avoid to apply a 'one size fits all' cluster policy in all sectors and context. Like in any policy action, cluster policies should be tailored on the existing (and evolving) local circumstances of the different clusters.

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