PRO€INVEST

THE PRO€INVEST PROGRAM AND CLUSTER & ENTERPRISE NETWORKS

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ECONOMISTI ASSOCIATI

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FINAL REPORT

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The views expressed in this report are those of the authors and do not necessarily reflect the views of the PRO€INVEST Implementation Service (PRIMS) and of the Center for the Development of Enterprise (CDE).

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ABBREVIATIONS AND ACRONYMS

ACP	Africa, Caribbean and Pacific
AGOA	African Growth Opportunity Act
AIDC	Auto Industry Development Center
APDF	African Project Development Facility
ATC	Apparel Technical Center
BEE	Black Economic Empowerment
BDS	Business Development Services
CDE	Center for the Development of Enterprise
CCA	Cape Clothing Association
CFC	Common Facility Center
CloTrade	Clothing Trade Council of South Africa
DAC	Durban Automotive Cluster
DTI	Department of Trade and Industry
EC	European Commission
ECAIC	Eastern Cape Automotive Cluster
EPA	Economic Partnership Agreements
EU	European Union
FTTSA	Fair Trade in Tourism in South Africa
GDP	Gross Domestic Product
GMA	Garment Manufacturers' Association
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
IDS	Institute of Development Studies
IFC	International Finance Corporation
ILO	International Labor Organization
ICT	Information and Communication Technology
ITTU	Intermediate Technology Transfer Unit
JAMPRO	Jamaica Promotions Corporation
KZNABC	Kwa-Zulu-Natal Automotive Benchmarking Club
MAN	Manufacturers' Association of Nigeria
MIC	Motor Industry Cluster Logistics Company
MMA	Magazine Mechanical Association
PPP	Public Private Partnership
SME	Small and Medium Enterprise
SODIDA	Société de Gestion du Domaine Industriel de Dakar
TOR	Terms of Reference
UNDP	United Nations Development Program
UNIDO	United Nations Industrial Development Organization
USAID	United States Agency for International Development
WAIPA	World Association of Investment Promotion Agencies
WTO	World Trade Organization

EXECUTIVE SUMMARY

Introduction. This study has been prepared by *Economisti Associati* on contract with the PRO€INVEST Implementation Service (PRIMS) of the Center for the Development of Enterprise (CDE). The study is aimed at providing operationally oriented recommendations in view of the possible involvement of PRO€INVEST in activities supporting the development of enterprise clusters and networks, with reference to countries in Africa, Caribbean and the Pacific (the "ACP countries"). The study is based on an extensive review of the literature on clusters and enterprise networks in ACP countries and on a survey of donors' and governments' policies in support of cluster development. Desk work was complemented with interviews with practitioners in cluster development and with other SME development experts working in various institutions (UNIDO, CDE, South Africa's Department of Trade and Industry, etc.).

Methodological Considerations. Over time the word cluster has become somewhat ubiquitous, being used to designate different phenomena. For the purpose of this study, ***clusters*** are defined as any form of geographical concentration of firms active in the same or similar lines of business, and related institutions. Clusters may be characterized by varying degree of inter firm collaboration and specialization/division of labor, ranging from the prototypical case of Italian "industrial districts", characterized by a high degree of internal cohesion, to much looser concentration of firms in developing countries. ***Enterprise networks*** are groups of firms cooperating on the joint implementation of some specific initiative in order to achieve higher levels of efficiency and/or to overcome common problems (e.g. penetrating some new markets). Enterprise networks can develop independently from clusters, although intensive and protracted forms of networking may eventually give rise to new clusters. Likewise, within clusters, the development of networks is facilitated by the intensity of linkages among firms. In the case of emerging countries the development of enterprise networks is sometimes regarded as an intermediate step in the framework of larger initiatives aimed at creating or reinforcing clusters. In other cases, the development of enterprise networks (e.g. export consortia) is an objective *per se*.

The benefits associated with clusters and enterprise networks fall into two broad categories, namely: (i) external economies ("positive externalities"), and (ii) benefits resulting from joint or collective action. ***Positive externalities*** have typically to do with the reduction of costs. On the production front, firms operating in a cluster typically find it easier to procure supplies of the required quantity and quality or to hire workers or technicians with the appropriate skills. Externalities may also occur on the commercialization front, as in certain cases the simple fact of being located in a cluster may facilitate access to the market, thanks to the presence in the cluster of specialized traders or, more simply, because clients tend to visit the cluster's location. In addition, when the appropriate conditions are fulfilled (see below), the frequent interactions among cluster member firms may give rise to forms of learning by interacting, thereby facilitating technical innovation. ***Benefits from collective action*** have much to do with economies of scope and economies of scale and may also encompass a wide range of aspects. For instance, firms belonging to a cluster or network may share some production facilities, devise a common IT system to coordinate the production flow, band together to negotiate shipping or air cargo rates, or establish common marketing and distribution facilities (from the creation of a common website to the joint appointment of trade agents in overseas markets to the establishment of joint after sales assistance units).

Enterprise Clusters in ACP Countries. The study analyzed in detail a selection of ten clusters in five ACP countries, namely: Kenya (metalworking and clothing in Nairobi's suburbs, vehicle repair services in Thika), Niger (leather and leather products in Zinder), Ghana (metalworking and vehicle repair services in Kumasi), South Africa (automotive clusters in KwaZulu-Natal and in Eastern

Cape, clothing in Western Cape), and Nigeria (automotive spare parts in Nnewi and footwear and leather goods in Aba). These clusters are characterized by different degrees of development and complexity and may be grouped in three categories, namely:

- the ***"survival" clusters***, represented by the three Kenyan clusters and the one in Niger. These are small clusters, mainly comprising micro enterprises, involved in simple production and service activities, and focusing largely (sometimes exclusively) on the domestic market. In these clusters the low level of technology, the limited specialization, and the equally limited inter-firm linkages, typically do not allow for positive externalities and for benefits from collective actions to emerge;
- the ***"advanced" clusters***, represented by the two automotive clusters in South Africa. These are concentrations of industrial companies in the proper sense, characterized by a "disintegration" of the production process, and operating in a highly competitive environment, with a substantial international projection. Relations within the clusters are dominated by the large car manufacturers (*Mercedes*, *Toyota*, etc.), whose influence also impacts on the nature and forms of inter-firm cooperation involving other players;
- the ***"intermediate" cases***, including the two Nigerian clusters, the Kumasi cluster in Ghana, and South Africa's Western Cape cluster. Despite a number of differences, these "intermediate cases" all share some common features, namely: (i) the coexistence of micro enterprises and modern firms, (ii) a certain degree of division of labor, and (iii) the existence of some forms of collective action. In general, it is primarily in the case of "intermediate" clusters that the main opportunities for donor supported cluster development actions can be found.

Irrespective of the peculiarities of individual clusters, the analysis highlights some common factors, namely:

- the ***time factor*** is a crucial element in explaining the different degree of development of clusters. The emergence of a division of labor and the establishment of cooperation routines among enterprises in a cluster does indeed require a considerable amount of time and even more time is required for some support institutions to be created and become established (see below). This process can be speeded up through government and donor interventions, but only up to a certain point;
- in several cases ***social factors*** do play a major role in the emergence of dynamic clusters. In ACP countries this includes ethnicity and religion. Indeed, clusters located in areas displaying a high degree of ethnic and/or religious cohesion (as in the case of the "Igbo country" in Nigeria) can more easily achieve stronger forms of inter-firm linkages and collaboration compared with those located in metropolitan areas (e.g. Nairobi), where the social fabric is much less homogeneous;
- the degree of development of the surveyed clusters is reflected in the nature and operational capabilities of ***business associations and professional groupings***. In the "survival" clusters business associations are very weak, often overlapping with self help organizations with a social orientation. As the clusters become more developed, associations begin to take roots and their ability to promote forms of collective actions increases;
- when the clusters are confronted by major challenges (such as those brought about by trade liberalization) the intervention of ***external agents*** is often necessary to trigger a positive reaction. It is precisely this need for an external "facilitator" that provides an important justification for donor and government interventions in support of cluster development.

Enterprise Networks in ACP Countries. As indicated above, enterprise networks are small groupings of enterprises undertaking some form of joint action in order to address some specific problem. Enterprise networks are sometimes "institutionalized", i.e. take the form of some legal entity (a consortium, an economic interest grouping), but very often they are of an informal nature. Likewise, enterprise networks may be stable or have a (more or less deliberately) temporary nature. The study analyzed four main types of enterprises networks, namely:

- ***Enterprise networks in marketing and commercialization***. The most typical form of institutionalized collective action in the area is represented by the export consortia, i.e. groupings of enterprises joining together in order to promote their sales in export markets. In other cases, enterprises may get together with the objective of securing contracts with the public sector, through some form of joint bidding. Examples of export consortia or other groupings involved in commercial matters can be found in manufacturing (e.g. a joint marketing organization established by garment producers in Nigeria), in agriculture (e.g. a commercially oriented association established by organic agriculture producers in Kenya), as well as in the tourism sector (with an increasing number of initiatives involving the creation of joint promotional web sites or reservation systems and the establishment of quality labels on a group basis);
- ***Enterprise networks in logistics***. Over the last decade, the rationalization of the logistics chain has become an increasingly important factor of competitiveness. In the case of more sophisticated industrial contexts (such as the South African automotive industry), joint initiatives in logistics may involve the adoption of common IT platforms coordinating the stock levels and production plans of companies active at various stages of the production chain. In less developed environments (e.g. the textiles and clothing industry in Madagascar), collective action may be confined the pooling of purchasing power (i.e. joint procurement of inputs or joint shipment of final goods) in order to extract better conditions from transport operators;
- ***Enterprise networks dealing with environmental and sanitary issues***. Many ACP exporters are obliged to fulfill fairly stringent sanitary standards imposed by importing countries and this has prompted the emergence of some joint initiatives to ensure compliance with the required standards. An example is provided by the East African fish processing operators which, repeatedly confronted with import bans imposed by the EU on sanitary grounds, ultimately decided to join forces to address the problem. As for environmental considerations (typically a powerful incentive for enterprises to group together in industrialized countries), their impact is still rather limited in most ACP countries, although signs of joint actions to tackle environmental issues have begun to emerge in some countries (e.g. tourism in Zanzibar);
- ***Enterprise networks in production and product development***. Inter-firm cooperation in production and product development is often of an informal nature and is fostered by the "disintegration" of the production process, which multiplies the opportunities for joint action. In ACP countries these forms of cooperation are fairly rare. In the "survival" clusters, cooperation in production is limited to the borrowing and lending of tools, with few examples of shared facilities (e.g. the joint ownership and operation of a central sawing machine by carpenters in Enugu, Nigeria). True inter-firm cooperation in product development is also hard to found in the "advanced" clusters, given the highly hierarchical nature of relationships between the leading companies and their suppliers.

Donor Initiatives in Support of Clusters and Enterprise Networks. Over the last 10 – 15 years international institutions have become increasingly involved in activities aimed at supporting the strengthening of clusters and/or enterprise networks. The most relevant experience can be summarized as follows:

- ***UNIDO***. UNIDO has been active in the promotion of SME clusters since the early 1990s. Initially, activities concentrated on India and Latin American countries, which offered *a priori* better chances of success, but operations have been gradually extended to some ACP countries, such as Senegal, Jamaica, Zimbabwe, and Nigeria. In general, UNIDO projects can be characterized as relatively "soft" interventions, with budgets in the order of US$ 500 – 800,000 (equivalent to about US$ 150 – 200,000 per year). Projects are implemented in stages, discounting the need to devote significant time to build consensus among the various stakeholders. At the same time, great attention is devoted to the early delivery of some tangible results, in order to win the "hearts and minds" of cluster participants and build the basis for further progress. UNIDO's initiatives in cluster development have been paralleled by other

smaller projects in support of enterprise networks and, namely, in the establishment of export consortia. However, so far these projects have been confined to fairly advanced emerging economies, such as Morocco and Tunisia, with no similar initiative yet implemented in ACP countries;

- ***USAID***. In the case of USAID, cluster & SME network development has been pursued primarily within the framework of broader "competitiveness enhancing" projects. Since 1998 some 30 operations of this type have been launched in a variety of countries. These include exercises in benchmarking and competitiveness analysis (often of a preparatory nature) as well as full fledged competitiveness enhancing initiatives. Most of these projects have been focusing on emerging economies in Asia and Eastern Europe, with only few initiatives in ACP countries (Uganda, Dominican Republic, South Africa). USAID full fledged competitiveness projects are large scale operations, with budgets of US$ 2-3 million (but there are three projects with budgets of US$ 9 – 11 million), often implemented over a period of 3 to 4 years;
- ***World Bank Group***. In the case of the World Bank, the theme of cluster or enterprise network development is sometimes echoed in projects aimed at fostering international competitiveness and local development (e.g. the recent Support to Economic Expansion and Diversification in Zambia), but the number of dedicated operations appears to be limited. In recent times, the theme has been attracting the attention of the various SME development facilities established by the IFC in various regions (e.g. the Mekong Private Sector Development facility or the Private Enterprise Partnership for Africa), but these activities are still largely confined to Asian countries (e.g. the development of a knitwear cluster in Bangladesh);
- ***CDE***. The CDE is traditionally active in supporting ACP small enterprises through sector-oriented programs. Often, these initiatives include, more or less explicitly, a cluster or enterprise networks development element. For instance, support to cluster development is the main objective of the project *Appui à la mise en réseau des PMI textile habillement* in Madagascar. Started in 2004, the project aims at fostering inter firm cooperation to facilitate the implementation of joint actions in various areas (e.g. pooling of shipments to overseas markets to reduce transportation costs, joint sourcing of raw materials and inputs not available in the local market, etc.). Other CDE initiatives where elements of cluster or network development are discernible, include current or envisaged initiatives in the fishing sector (development of aquaculture and enhancement of sanitary standards), in tourism, and in the leather sector. The size of CDE projects varies greatly, depending upon the time span and the specific nature of activities to be undertaken, ranging from € 150,000 to some € 500,000.

Recommendations for the PRO€INVEST Program. The theme of cluster and enterprise network development appears to offer significant opportunities for the PRO€INVEST program, and the explicit incorporation of a cluster/network approach in current operations could help in scaling up the volume of activities in favor of SME. In particular:

- in the area of ***cluster development***, an indirect support approach appears the most appropriate. This could involve (i) the launch of training initiatives for cluster development practitioners, similar to the initiatives currently implemented by UNIDO but explicitly focused on ACP clusters; (ii) the sponsoring of a an ACP Cluster Forum, that could play a useful role in intensifying international contacts among clusters in various countries and that could gradually become an agent in promoting and sustaining cluster development; and (iii) the sponsoring of some international linkages between EU and ACP clusters, through the provision of support to twinning arrangements in selected sectors;
- in the area of ***enterprise network development***, the program could envisage a series of direct support actions targeted at smaller groups of enterprises. Implemented over a 2-3 years period and with budgets of up to € 1 million, these initiatives would combine activities aimed at consolidating cooperation among the target firms with a significant volume of operational activities (organization of trade missions, establishment of joint marketing and commercialization structures, etc.).

The adoption of a cluster/network development approach by PRO€INVEST would require some modifications in the program's current operating modalities but would also offer the opportunity for significant synergies. In particular:

- ***Need for a program-initiated approach***. An element common to nearly all initiatives aimed at supporting clusters or enterprise networks in ACP countries is the crucial role played by external actors. Indeed, as local institutions are too weak, projects are implemented by consultants or specialized institutions contracted for the task. This has major implications for PRO€INVEST, as its involvement in cluster/enterprise network development activities would imply an at least partial shift away from the current demand-driven approach towards a program-initiated approach;
- ***Possible synergies with CDE***. In the design and implementation of cluster and enterprise network initiatives PRO€INVEST could capitalize on the wealth of sector-specific expertise and field experience available within the CDE. This would greatly help in enhancing the relevance of the envisaged interventions and could also contribute to reduce costs at the design and preparation stage. On the other hand, some CDE projects already include a more or less explicit cluster/network development element and future CDE activities could benefit from a closer integration with PRO€INVEST, with potentially significant gains in efficiency and effectiveness.

MAIN TEXT

1 INTRODUCTION

Scope and Objective. This report (the "Final Report" or the "Study") has been prepared by *Economisti Associati* (the "Consultant") within the framework of the assignment on "The PRO€INVEST Program and Cluster Approach" (the "Assignment"). The Study was carried out by the Consultant on contract with the PRO€INVEST Implementation Service (PRIMS) at the Center for the Development of Enterprise (CDE). The Study is aimed at providing operationally oriented recommendations in view of the possible involvement of PRO€INVEST in activities supporting the development of enterprise clusters and networks, with reference to countries in Africa, Caribbean and the Pacific (the "ACP countries").

Rationale. The rationale for the Study lies in the increasing attention paid to clusters and enterprise networks worldwide. Until the 1980s the phenomenon was largely confined to industrialized economies characterized by a strong presence of small and medium enterprises (SME), such as the Italian "industrial districts" in clothing and ceramic tiles, their German counterparts in mechanical engineering, etc.. The progressive liberalization of trade and investment flows recorded during the 1990s and the early 2000s has led to a progressive "internationalization" of the cluster concept, and significant agglomerations of SME characterized by a high degree of inter firm cooperation are now found in various emerging and developing economies. Hence the interest of PRO€INVEST in assessing the state of the art on clusters and enterprise networks in ACP countries and in devising possible operational mechanisms to support their emergence and strengthening. While obviously focused on the PRO€INVEST program, the Study may also have a bearing in other contexts. This is particularly the case of the Economic Partnership Agreements (EPA) currently being negotiated with ACP countries and whose implementation is likely to require a significant restructuring of ACP countries' productive base.

Methodology. The Study is based on four main elements, namely:

- the review of existing literature on clusters and enterprise networks in ACP countries as well as on selected other developing countries;
- the review of the experience and best practices in cluster development government policies and donor interventions;
- a series of meetings in Bruxelles with PRO€INVEST and CDE staff as well as with officials of the relevant services within the European Commission;
- interviews with some practitioners involved in cluster development, including a visit to the UNIDO headquarters and some field interviews in South Africa and Botswana.

Early results were incorporated in Inception and Interim Reports submitted to PRIMS/CDE in the previous months. In addition, preliminary results were discussed at a workshop held at PRIMS/CDE on September 30, 2005. This Final Report incorporates the comments and suggestions formulated during the workshop.

Structure. The Study is structured as follows:

- Section 2 briefly elaborates on some methodological aspects;
- Section 3 presents the results of a cluster mapping exercise, with an illustration of the salient features of selected clusters in ACP countries;
- Section 4 does the same with respect to enterprise networks;
- Section 5 illustrates the approaches to cluster development adopted by various donors;
- Section 6 formulates some suggestions on the possible inclusion of cluster and network development initiatives in the PRO€INVEST program.

The Study also includes a series of Annexes, providing supporting evidence for the elements presented in the main text. In particular:

- Annex A includes a series of ten cases studies on ACP clusters;

- Annex B summarizes the experience of UNIDO in cluster development;
- Annex C illustrates UNIDO's experience in the development of a specific form of enterprise networks, namely export consortia;
- Annex D illustrates South Africa's experience in promoting enterprise clustering as a form of industrial modernization policy;
- Annex E summarizes USAID's experience with cluster development as part of competitiveness enhancing projects;
- Annex F illustrates the salient features of some CDE projects with a cluster or network development element;
- Annex G provides practical suggestions for the identification and design of cluster/network development initiatives.

Finally, the Study also includes an extensive bibliography, including academic papers and research works as well as project documents and policy blueprints issued by donors, international organizations and government entities.

Authors, Acknowledgements and Disclaimer. The Study was coordinated by Roberto Zavatta who also authored the main text and Annex G. Roberta Rabellotti is the author of Annexes A through F. Written inputs were provided by Jörg Meyer-Stamer and Maria Grandinson while useful comments and/or background materials were provided by Andrea Balestri, Robert Kaplan and Dorothy McCormick. Useful suggestions and materials were provided by the staff of the UNIDO SME Branch, namely: Fabio Russo, Giovanna Ceglie, Gabi Ott, Aurelia Calabro, and Michele Clara. Other useful inputs were collected during meetings with EC officials (namely: Claudio Salinas, Amadou Traoré and Odoardo Como) as well as with PRIMS and CDE staff (namely: Sid Boubekeur, Klaus Niederlaender, Erik Rotsaert, Eckhard Hinzen, and Paolo Baldan). While acknowledging their intellectual debt towards the above mentioned persons, the authors retain full responsibility for the contents of the Study. Furthermore, the Study does not necessarily reflect the views of PRIMS/CDE.

2 METHODOLOGICAL (AND TERMINOLOGICAL) CONSIDERATIONS

Clusters. Over time the word cluster has become somewhat ubiquitous, being used to designate different phenomena. According to the ***traditional definition***, elaborated within the framework of the early studies on the Italian "industrial districts", clusters are geographical concentrations of firms operating in the same sector/sub-sector, involved in interdependent production processes, and embedded in the local community[1]. In other words, clusters as originally defined are characterized by four fundamental elements, namely:

- geographical concentration;
- sector or sub-sector specialization;
- a certain degree of division of labor or "disintegration" of the production process;
- a strong link with the local social environment.

Other definitions have been proposed. For instance, Porter and some other authors use the term cluster to designate a set of industries related through buyer-supplier relationships or by common technologies and/or distribution channels[2]. In the ***cluster à la Porter*** (a concept that very much resembles the older, but equally useful, notion of *filière*), the geographical concentration and social linkages elements that represent key features of the traditional definition are largely lost. On the other hand, overtime some scholars and development practitioners have resorted to a ***broader definition***, using the word cluster to designate nearly any form of geographical concentration of firms active in the same or similar lines of business, irrespective of the existence of forms of inter firm cooperation and of social cohesion factors[3].

Overall, the broader definition appears comparatively more useful in the context of developing countries (where clusters fulfilling the traditional definition are indeed a rarity) and it is the definition retained within the framework of this Study.

Enterprise Networks. Networks are groups of firms cooperating on the joint implementation of some specific initiative in order to achieve higher levels of efficiency and/or to overcome common problems (e.g. penetrating some new markets). In practice, networks are characterized by looser forms of inter firm cooperation compared with those found in clusters of the traditional variety. Networks can develop independently from clusters, although intensive and protracted forms of networking may eventually give rise to new clusters. Likewise, within clusters, the development of networks is facilitated by the intensity of linkages among firms. In the case of emerging countries the development of enterprise networks is sometimes regarded as an intermediate step in the framework of larger initiatives aimed at creating or reinforcing clusters. In other cases, the development of enterprise networks (e.g. export consortia) is an objective *per se*[4].

Benefits Associated with Clusters and Enterprise Networks. Clusters and enterprise networks are worth studying and promoting because of the benefits that accrue to their "member firms". These benefits can be subdivided into two broad categories, namely: (i) external economies ("positive externalities"), and (ii) benefits resulting from joint or collective action[5]. ***Positive***

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[1] The seminal works on the subject include: Becattini G., *Mercato e forze locali: il Distretto Industriale*, Bologna: Il Mulino, 1987; Pyke F., Becattini G., and Sengenberger W., editors, *Industrial Districts and Inter-firm Cooperation in Italy*, Geneva: International Institute for Labor Studies, 1992.

[2] See for instance, Porter M. E., *The Competitive Advantage of Nations*, New York: The Free Press, 1990.

[3] See Schmitz H., "Collective efficiency: growth path for small-scale industry", *Journal of Development Studies*, Vol. 31, No. 4: 529-566, 1995.

[4] A useful discussion on enterprise networks is contained in UNIDO, *Development of Clusters and Networks of SME – The UNIDO Program*, Vienna, 2001.

[5] Schmitz (1995) introduced the concept of "collective efficiency" defined as the competitive advantage derived from local external economies and collective action.

externalities have typically to do with the reduction of costs. On the production front, firms operating in a cluster typically find it easier to procure supplies of the required quantity and quality or to hire workers or technicians with the appropriate skills. Externalities may also occur on the commercialization front, as in certain cases the simple fact of being located in a cluster may facilitate access to the market, thanks to the presence in the cluster of specialized traders or, more simply, because clients tend to visit the cluster's location. In addition, when the appropriate conditions are fulfilled (see below), the frequent interactions among cluster member firms may give rise to forms of learning by interacting, thereby facilitating technical innovation. ***Benefits from collective action*** have much to do with economies of scope and economies of scale and may also encompass a wide range of aspects. Firms belonging to a cluster or network may share some production facilities, devise a common IT system to coordinate the production flow, band together to negotiate shipping or air cargo rates, or establish common marketing and distribution facilities (from the creation of a common website to the joint appointment of trade agents in overseas markets to the establishment of joint after sales assistance units).

As it will be seen in subsequent sections, the simple combination of (i) sector/sub-sector specialization and (ii) territorial concentration (i.e. the two elements that, as indicated above, identify a "broadly defined" cluster) does not guarantee that positive externalities and benefits from collective action are indeed achieved. Sometimes, the technology may be so rudimentary (and this is often the case in developing countries) that there is very little to be shared or learned through inter firm interactions. In other cases, rivalry among firms may be so strong to effectively prevent any significant form of collective action. Therefore, the ***performance of clusters*** (as well as of enterprise networks) varies greatly, depending upon a variety of factors in the social, technological and commercial spheres[6]. In other words, the positive connotation that is implicitly attributed to the clusters of the traditional variety (i.e. the Italian and European clusters) is by no means a stable feature of the "broadly defined" clusters that form the subject of our analysis.

Role of Institutions. So far the accent has been placed exclusively on enterprises. However, in order to achieve the benefits potentially associated with clustering and networking, the role of institutions is often of crucial importance. In this context, the word institutions covers a wide range of structures, from sector and territorial business associations, to service centers providing technical or commercial assistance to enterprises, and from specialized training institutions to discussion forums ("clubs"), where issues of relevance for the cluster are debated. In turn, institutions may be of a ***private nature*** (from the simple self help organizations commonly found in the informal sector in Africa to full fledged business associations), ***public entities*** (often involved in technological or commercial development activities), or more often than not, the result of some form of ***public-private partnership*** (the model being epitomized by the chambers of commerce of the "Continental European" variety and their subsidiaries). Therefore, the above definition of cluster must be reformulated, to explicitly encompass the cluster-related institutions ("clusters are forms of geographical concentration of firms active in the same or similar lines of business and related institutions").

[6] See McCormick D., "African Enterprise Clusters and Industrialization: Theory and Reality", *World Development*, Vol. 27. No.9, pp. 1531-1551, 1999.

3 ENTERPRISE CLUSTERS IN ACP COUNTRIES

Introduction. The first part of the Study involved the review of empirical studies on existing clusters in ACP countries. The purpose of this exercise was to identify the main patterns of cluster development in ACP countries, which, in turn, would provide a useful reference framework for the design of possible PRO€INVEST interventions. After a general review of the literature on ACP clusters (covering published works as well as project documents and other pieces of "grey literature"), the attention concentrated on a selected number of clusters. The results of this analysis are presented in this section. It is worth to point out at the outset that the clusters analyzed in detail in the framework of the study certainly do not exhaust the universe of clusters currently in existence in ACP countries. However, it is believed that they adequately represent the main typologies, thereby allowing for a better understanding of the potential for and, equally important, the constraints to actions aimed at supporting cluster development.

Selected Clusters. The clusters analyzed during the Study include:

- the ***clothing manufacturing*** cluster located in the Eastlands suburb of Nairobi;
- the ***tanning and leather products*** cluster located in Zinder, in southern Niger;
- the ***automotive components/light engineering*** cluster located in Nnewi, in south eastern Nigeria;
- the ***footwear*** cluster located in Aba, also in south eastern Nigeria;
- the ***automotive assembly and components*** clusters active in the Eastern Cape and KwaZulu-Natal provinces of South Africa;
- the ***clothing manufacturing*** cluster located in Cape Town and other Western Cape locations, also in South Africa;
- the ***metalworking*** cluster located in Kumasi (Suame district), the provincial capital of the Ashanti region in Ghana;
- the ***metalworking*** cluster in the Kamukunji suburb of Nairobi;
- the ***vehicle repair services*** cluster in the town of Thika, in central Kenya.

The salient features of the above clusters are summarized in Table 1 below while a more detailed description is provided in the case studies included in Annex A.

Table 1 Salient Features of Selected ACP Clusters

Location	Sector/Line of Business	Main Features
Nairobi (Eastlands suburb), Kenya	Clothing	A small cluster, including some 600 micro and small firms and a handful of medium sized producers, with a total employment of about 3,000. Formed in the mid 1970s and characterized by a low level of technology, the cluster developed during the import substitution period, but was heavily affected by market liberalization in the 1990s.
Zinder, southern Niger	Leather and leather products	A small cluster (some 100 firms, with an estimated 1,500 – 2,000 workers). Some industrial development has occurred over time but the cluster still largely displays an artisanal character. Relatively easy access to raw materials and high social cohesion appear as the main strengths.
Nairobi (Kamukunji district), Kenya	Metalworking	A typical informal cluster, resulting from the forced relocation of artisans from central city areas in the mid 1980s. The some 2,000 artisans and micro enterprise located there largely rely on rudimentary technology, with limited examples of intra firm cooperation in product development.
Thika, central Kenya	Vehicle repair and some production of car spare parts	A small cluster of some 100 repair shops, supported by some small scale manufacturers of simple spare parts. Despite its recent formation (late 1980s) the cluster has developed a certain reputation, especially for *matatus* and heavy trucks, and is attracting customers from neighboring areas.

Kumasi, Central Ghana	Metalworking and vehicle repair services	A large cluster, with an estimated employment of 80,000, whose origins date back to the 1950s. Technology levels are not comparable with those of modern industrial operations, but overtime some upgrading and product innovations have occurred. Business associations are comparatively well developed and some support has been provided by a technically oriented service structure, connected with the local university.
Nnewi, south eastern Nigeria	Automotive spare parts	A sizeable cluster, grouping 400 micro enterprises, some 100 small manufacturers and a dozen medium sized companies, with a total employment of about 10,000. Its development owes much to the establishment of cooperative links with foreign companies, which date back to the 1970s. Faced with increasing competition from imports, the cluster now requires a technological upgrading and further specialization.
Aba, eastern Nigeria	Footwear and some leather goods	A sizeable cluster, including several hundred micro and small businesses and a dozen large companies, with an employment of 50,000. Aba is known as the footwear capital of West Africa and indeed some 30-40% of output is exported to neighboring countries. In recent years competition from import has significantly increased and attempts to increase efficiency through collective action are ongoing.
Eastern Cape province, South Africa	Automotive industry (vehicle assembly & components)	A large cluster, including three international car makers and some 150 component producers, with a total employment of some 50,000. Following the opening up of the South African economy, the cluster underwent remarkable changes to enhance production efficiency. Largely dictated by the car makers, the restructuring process led to a significant increase in export volumes.
KwaZulu-Natal province, South Africa	Automotive industry (vehicle assembly & components)	A fairly large cluster, including one leading car maker and some 50 component producers. Adaptation to new competitive environment prevailing in South Africa's automotive industry took some time, but was eventually crowned by success. Improvement in performance was actively supported by some cluster development initiatives.
Western Cape province, South Africa	Clothing	A sizeable cluster, whose production base ranges from large scale modern companies to informal micro enterprises, with a total employment of some 50,000. Starting with the 1990s the cluster has been suffering from cheap imports while opportunities offered by AGOA have been exploited only to a limited extent. An attempt to enhance competitiveness through cluster development initiatives along the KwaZulu-Natal model has just started.

Typologies. The clusters analyzed differ widely in terms of lines of business, size, age, technological level, and market orientation, but for analytical purposes they can be grouped in three categories. In particular:

- on the one hand, we have the ***"survival" clusters***, represented by the three Kenyan clusters and the one in Niger. These are small clusters, mainly comprising micro enterprises, involved in simple production and service activities, and focusing largely (if not exclusively) on the domestic market. The low level of technology, the limited specialization, and the equally limited inter-firm linkages (often confined to the mere borrowing and lending of tools), do not allow for positive externalities and for benefits from collective actions to emerge;
- at the opposite end of the spectrum are the ***"advanced" clusters***, represented by the two automotive clusters in South Africa. These are concentrations of industrial companies in the proper sense, characterized by a "disintegration" of the production process, and operating in a highly competitive environment, with a substantial international projection. Relations within the clusters are dominated by the leading companies, whose influence also impacts on the nature and forms of inter-firm cooperation involving other players;
- in between are the ***"intermediate" cases***, including the two Nigerian clusters, the Suame cluster and the Western Cape cluster. These "intermediate cases" are indeed fairly different one for the others, but they all share some common features, namely: (i) the coexistence of micro

enterprises and modern firms, (ii) a certain degree of specialization, and (iii) the existence of some forms of collective action. In general, it is primarily in the case of "intermediate" clusters that the main opportunities for cluster development actions can be found.

Selected Issues. Against the above background, some aspects are worth highlighting, namely:

- although it may appear obvious, the ***time factor*** is a crucial element in explaining the different performance of clusters. The emergence of a certain degree of specialization and division of labor, the adoption and adaptation of new technologies, the establishment of cooperation routines among enterprises in a cluster does require a considerable amount of time. And indeed, it is not by chance that the younger clusters in our sample (i.e. those with less that twenty years of history) typically fall in the "survival" category. The main purpose of interventions aimed at supporting cluster development is precisely to accelerate this process. However, as it will be seen later in this report, donor initiatives in this field also tend to take a medium – long term view;
- as it could be easily expected based on the experience of European clusters, ***social factors*** do play a major role in the emergence of dynamic clusters. In ACP countries this includes ethnicity and religion. Indeed, clusters located in areas displaying a high degree of ethnic and/or religious cohesion (as in the case of the "Igbo country" in Nigeria) can more easily achieve stronger forms of inter-firm linkages and collaboration compared with those located in metropolitan areas (e.g. Nairobi), where the social fabric is much less homogeneous. However, the importance of "traditional" social factors is much lower, in fact becomes negligible, in the case of more modern clusters, such as those in South Africa, where professional ties and a shared set of business values replace traditional ties;
- as indicated in Section 2 above, institutions are an essential ingredient for clusters to develop and prosper. And indeed, the degree of development of the surveyed clusters is reflected in the nature and operational capabilities of ***business associations and professional groupings***. In the "survival" clusters business associations are very weak, often overlapping with self help organizations with a social orientation, and they provide only very basic services to members (such as the security services provided by the *Jua Kali* association in Kamukunji, to prevent theft from the open air workshops). As the clusters become more developed, associations begin to take roots and their ability to promote forms of collective actions increases;
- whatever the stage of development of local institutions, when the clusters are confronted by major challenges (such as those brought about by trade liberalization) the intervention of ***external agents*** is often necessary to trigger a positive reaction. This is true also in the case of the "advanced" clusters, such as the car components clusters in South Africa. In fact, external agents were instrumental in facilitating the launch and the implementation of some initiatives (e.g. the KwaZulu-Natal Benchmarking Club and its successor, the Durban Auto Cluster) aimed at improving the cluster's overall international competitiveness. It is precisely this need for an external "facilitator" that provides an important justification for donor interventions in support of cluster development.

4 ENTERPRISE NETWORKS IN ACP COUNTRIES

Introduction. As indicated in the definition provided in Section 2 above, enterprise networks are small groupings of enterprises undertaking some form of joint action in order to address some specific problem. Enterprise networks are sometimes "institutionalized", i.e. take the form of some legal entity (a consortium, an economic interest grouping), but very often they are of an informal nature. Likewise, enterprise networks may be stable or have a (more or less deliberately) temporary nature.

Enterprise networks in the ACP countries are rarely the subject of dedicated studies. However, the literature review conducted with reference to clusters as well as the analysis of other documentation on enterprises development in general allows the identification of some examples. In this section we briefly discuss the features of enterprise networks in four main areas, namely:

- marketing and commercialization;
- logistics;
- environmental protection and sanitary standards; and
- production and product development.

Enterprise Networks in Marketing and Commercialization. The most typical form of institutionalized collective action in the area is represented by the ***export consortia***, i.e. groupings of enterprises joining together in order to promote their sales in export markets. In their simplest form export consortia only deal with promotional and information sharing issues, such as the collective renting of fairs stands or the organization of joint business missions. In their more elaborate forms export consortia may take over all or part of commercial functions from constituent enterprises, becoming the contracting agency between the clients and the producers/member companies. While the export consortium is the archetype, similar collective structures can obviously be established with reference to the domestic market or certain segments thereof, for example with the objective of ***securing contracts with the public sector***, through some form of joint bidding. However, in these cases inter-firm cooperation is likely to take a more informal nature, with the establishment of structures on a contractual basis (the so called unincorporated joint ventures) or even without any type of legal form.

Evidence on export consortia or other groupings involved in commercial matters in ACP countries is scanty and not systematized. The literature on clusters reviewed during the study indicates the existence of a joint marketing organization established by garment producers in Aba, Nigeria (but the initiative seems to have foundered). In the Western Cape clothing cluster, at a certain point sector associations tried to establish a sort of common database of clients, primarily with the purpose of screening out the bad payers. Another example is provided by the furniture makers in Enugu state (Nigeria), who have some record of joint bidding for public contracts (but this can be traced to an ILO project more than to genuine self organization). Yet another example is provided by the organic agriculture producers in Kenya, which have recently established an operationally oriented association, whose declared aims include the joint commercialization in export markets.

A special variety of joint actions in marketing and commercialization is represented by the initiatives undertaken by ***groups of tourism operators*** to promote their products and/or the location where they are located. A typical action falling in this category is the establishment of a joint website, illustrating the features of a certain number of hotels as well as the beauties of the surrounding environment. More sophisticate forms of collaboration include the establishment of joint reservation systems and the establishment of quality labels, intended to differentiate the products offered by the grouping. This type of initiatives are increasingly common in developed countries, where the principles of "destination marketing" are taking root also in more secluded places. In ACP countries tourism promotion is typically taken over (with varying efficiency) by

government bodies but independent initiatives launched by groups of operators are increasingly common. An example is provided by the grouping *Go To Madagascar*, which in a short period of time has been able to grow from a very modest base (in the early 2000s the grouping was still informally organized) into a fairly efficient promotional tool, operating a well conceived website and actively promoting the adoption of strict quality standards among tourism operators, through the establishment of a quality label ("Welcome to Madagascar")[7]. A similar evolution can be noted in the case of the *Fair Trade in Tourism in South Africa* (FTTSA), an association of eco-tourism operators that has developed a well conceived quality label (and the related certification program), which is becoming increasingly well known in the market[8].

Enterprise Networks in Logistics. Over the last decade, the rationalization of the logistics chain has become an increasingly important factor in Western countries. Indeed, faced with increasing competition in the end products markets, companies are striving to achieve higher levels of efficiency in all the stages of the production process. In highly "disintegrated" industries this may involve the adoption of common IT platforms coordinating the stock levels and production plans of companies active at various stages of the production chain. In other cases, collective action may simply concern the pooling of purchasing power, in order to extract better conditions from transport operators. Against such a background it comes to no surprise that cooperation in logistics is one of the top priorities for the automotive clusters in South Africa, whose international competitiveness depends crucially on increased efficiency through enhanced coordination in production as well as on the reduction of transportation costs to export markets. In less developed environments, cooperation is typically confined to joint procurement, with two or more enterprises jointly purchasing some types of inputs in order to reduce transportation costs.

Enterprise Networks dealing with Environmental and Sanitary Issues. Increasingly stringent environment regulations often act as a powerful incentive for enterprises to group together. In fact, since the 1970s in the European countries innumerable consortia have been established by groups of firms active in "dirty" industries in order to jointly establish and operate pollution abatement facilities. In ACP countries the pressure from environmental protection authorities remains modest and the examples of inter-firm cooperation in this field are still limited. On the other hand, many ACP exporters are obliged to fulfill fairly stringent sanitary standards imposed by importing countries. As non compliance with these standards may have disastrous effects, with the loss of lucrative export markets, enterprises may well have an incentive for joint action. A vivid illustration of this is provided by the East African fish processing sector, that during the last decade was repeatedly confronted with import bans imposed by the EU on sanitary grounds. It was on that occasion that otherwise highly individualistic operators were eventually led to join forces to address the problem (incidentally, with the instrumental support of CDE). This in turn, helped creating the conditions for further actions, in the area of marketing and of efficient use of scarce natural resources. Something similar is currently happening in Zanzibar with respect to the tourism sector. Indeed, the poor state of the sewage network in the Unguja island coupled with the considerable amount of waste generated by tourists, is posing an increasingly serious threat to the long term sustainability of tourism activities. The problem was eventually acknowledged by the tourism operators community that, once again with assistance from CDE, is now considering a first series of actions.

Enterprise Networks in Production and Product Development. Inter-firm cooperation in production and product development is often of an informal nature and is fostered by the "disintegration" of the production process, which multiplies the opportunities for joint action. In Western countries, it is based on such form of cooperation, rather than on formal R&D work in

[7] For further information on *Go To Madagascar*, please visit the website www.go2mada.com.
[8] For additional information on FTTSA, please visit the website www.fairtourismsa.org.za.

laboratories, that some significant product innovations are born (e.g. a new type of ceramic tiles, combining greater resistance with more attractive appearance). In ACP countries these forms of cooperation are much more rare. In the "survival" clusters, cooperation in production is limited to the borrowing and lending of tools, with few examples of shared facilities (e.g. the joint ownership and operation of a central sawing machine by carpenters in Enugu, Nigeria). Our case studies on "survival" clusters document only one clear example of joint product development, the production of a new type of wheelbarrow by a small group of artisans in Nairobi's Kamukunji district. At the opposite end of the range, true inter-firm cooperation is also hard to found in the "advanced" clusters, given the highly hierarchical nature of relationships between the leading companies and their suppliers. Indeed, cooperation may occur only among equals or at least among similar entities and in this respect the clusters of the "intermediate" variety seem to offer comparatively more opportunities for actions aimed at supporting the establishment of enterprise networks in production.

5 DONOR AND POLICY INITIATIVES IN CLUSTER AND ENTERPRISE NETWORK DEVELOPMENT

Introduction. The analysis of selected clusters/enterprise networks was paralleled by the review of a series of donor supported projects and of public policies aimed at fostering cluster development. In this context, significant attention was paid to the experience of ***UNIDO***, which has been the most active international organization in the promotion of cluster and enterprise networks. This was followed by the review of operations of other key international players, such as the ***USAID*** and the ***World Bank Group***, and by the review of ***South Africa***'s experience with cluster development policy. Finally, the analysis also covered ***CDE*** sector oriented initiatives, which in several cases include a more or less explicit cluster or network development element. A summary presentation of the initiatives undertaken by the above organizations is provided in the remainder of this Section while a more detailed presentation is provided in Annexes B through F.

UNIDO's Initiatives in Cluster/Enterprise Network Development. UNIDO has been active in the promotion of SME clusters and enterprise networks for more than a decade. The seminal paper *Principles for Promoting Clusters & Networks of SME* was published in 1995 and was quickly followed by a series of operational initiatives. Initially, UNIDO's activities concentrated on India and Latin American countries, which offered *a priori* better chances of success, but gradually ACP countries have also been the object of initiatives. Recent UNIDO's experience with cluster and network development projects or projects with a "clustering/networking component" include:

- an SME development initiative in ***Senegal*** focusing on five sectors and explicitly adopting an enterprise network development approach ("*Projet d'appui aux petites entreprises du Sénégal*");
- an SME competitiveness project in ***Jamaica***, also focusing on cluster and network development ("Strengthening the Competitiveness of the Jamaican Manufacturing Sector with Special Emphasis on Small and Medium Enterprises");
- a clustering and network development project focused on small scale industries in ***Zimbabwe*** ("Development of the SMI Sector Using Clustering and Networking");
- a cluster development project in ***Nigeria***, focusing on the leather, garments and light engineering sectors ("Cluster Development in Eastern Nigeria").

The detailed features of these interventions are summarized in Annex B.

In general, UNIDO projects can be characterized as relatively soft interventions, with budgets in the order of US$ 500 – 800,000 (equivalent to about US$ 150 – 200,000 per year). Projects are implemented in stages, discounting the need to devote significant time to the initial, crucially important stages, when a spirit of collaboration has to emerge among the various stakeholders. At the same time, great attention is devoted to the early delivery of some tangible results, in order to win the "hearts and minds" of cluster participants and build the basis for further progress. UNIDO projects are closely monitored by task managers at headquarters, with relatively frequent field missions. Budgetary and operational considerations limit the recourse to long term expatriate consultants, usually replaced by an intensive use of short term expatriate expertise, supported by significant local resources. It is worth noting that the experience accumulated by UNIDO overtime is now allowing the reaping of some "economies of scope", with the replication of intervention models and, in certain cases, the use of resources (personnel and institutions) that were used or established during the early projects[9]. Finally, UNIDO's operational projects are complemented by some training initiatives, as detailed in Box 1 below.

[9] For instance, the recent UNIDO cluster development project in Nigeria involves study tours in Zimbabwe and in India, where similar projects were implemented in the past.

Box 1 - UNIDO Training Initiatives in Cluster and Network Development

In recent years training activities in the field of cluster and network development have been implemented by UNIDO, in collaboration with ILO. Targeted at practitioners active in SME development (such as staff of local development agencies, small business associations, development finance institutions, chambers of commerce, etc.), these training activities aim at enhancing the understanding of the cluster/enterprise network phenomenon and at providing participants with practical tools to support cluster and enterprise network development. Topics covered during the two weeks course include a variety of practically oriented subjects, such as cluster diagnostics and mapping, network building techniques, design of BDS for clusters, etc. In 2004 and 2005 training courses were held at ILO's International Training Center in Turin, and teaching activities were complemented by visits to some Italian clusters in neighboring regions (wood processing in val Varaita, light engineering in Valsesia)[10].

UNIDO's Initiatives to Promote Export Consortia. UNIDO's initiatives in cluster development have been paralleled by other smaller projects in support of enterprise networks and, namely, in the establishment of export consortia. So far these projects have been confined to fairly advanced emerging economies, such as Morocco and Tunisia, with no initiative yet implemented in ACP countries. Projects on export consortia tend to be smaller than cluster development initiatives, with budgets of US$ 200 – 250,000 spread over a period of 2 to 3 years. Activities include support to the establishment of consortia (initial networking, advice of legal structures, etc.) as well as support to a first set of export promotion initiatives. A presentation of UNIDO's activities on export consortia can be found in Annex C.

USAID's Experience in SME Clustering and Network Development. In the case of USAID, cluster & SME network development has been pursued primarily within the framework of broader "competitiveness enhancing" projects. Since 1998 some 30 operations of this type have been launched in a variety of countries. These encompass exercises in benchmarking and competitiveness analysis (often of a preparatory nature) as well as full fledged competitiveness enhancing initiatives. Most of these projects have been focusing on emerging economies in Asia and Eastern Europe, with only few initiatives in ACP countries (Uganda, Dominican Republic, plus some limited work in South Africa). USAID full fledged competitiveness projects are large scale operations, with budgets of US$ 2-3 million (but there are three projects with budgets of US$ 9 – 11 million), often implemented over a period of 3 to 4 years. A summary presentation of USAID initiatives is provided in Annex D.

World Bank Group Activities in Cluster Development. In the case of the World Bank, the theme of cluster or enterprise network development is sometimes echoed in projects aimed at fostering international competitiveness and local development (e.g. the recent Support to Economic Expansion and Diversification in Zambia), but the number of dedicated operations appears to be limited. In recent times, the theme been attracting the attention of the various SME development facilities established by the IFC in various regions (e.g. the Mekong Private Sector Development facility or the Private Enterprise Partnership for Africa)[11]. A very recent example is the program to develop the knitwear cluster in Bangladesh, through a series of technical assistance activities (market surveys, provision of facilitation services, etc.) financed by the South Asia Enterprise Development Facility (SEDF)[12]. Evidence of similar operations in ACP countries is still limited, and the only example identified during the study relates to some technical assistance and, possibly,

[10] For further details, please refer to www.itcilo.org/cluster.
[11] A full presentation of the SME development facilities is provided in the joint IFC – World Bank SME website. Please refer to: www.ifc.org/ifcext/sme.nsf/Content/Regional_Facilities.
[12] For more details, please refer to www.sedf.org.

the establishment of SME financing schemes in parallel with UNIDO's cluster development efforts in Nigeria.

South Africa's Cluster Development Policy. In the mid 1990s, South Africa's Department of Trade and Industry (DTI), developed a considerable interest in the concept of clustering, seen as a useful tool to promote industrial modernization in the wake of economic liberalization. Indeed, the DTI worked hard to popularize the concept of clusters, mainly through hosting a series of workshops with key sector groups. However, while the studies and their related dissemination process contributed to the development of a shared strategic perspective of various sectors, they did not, in most instances, translate into any sustained collective action by the stakeholders concerned. This was due to a combination of factors, including a certain lack of funding by the government and the limited local focus of the cluster initiative, which was mainly geared at the national level. While DTI efforts encountered limited success, some locally originated initiatives have taken roots. An example in point is provided by the Kwa-Zulu-Natal Automotive Benchmarking Club (KZNABC), which provided a useful forum for companies in the automotive industry to identify and tackle main problems related to international competitiveness. The KZNABC later evolved into a more structured organization (the Durban Auto Cluster) and its example is now being followed in other provinces and sectors (e.g. the Cape Clothing Cluster). An analysis of cluster policy developments in South Africa is provided in Annex E.

CDE's Contribution to SME Clustering and Network Development. The CDE is traditionally active in supporting ACP enterprises through sector-oriented programs. Often, these initiatives include, more or less explicitly, a cluster or enterprise networks development element. Support to cluster development is the main objective of the project *Appui à la mise en réseau des PMI textile habillement* in Madagascar. Started in 2004, the project aims at supporting the Malagasy textiles and clothing industry to regain a foothold in the international market, after the crisis of 2002. This is done primarily by fostering inter firm cooperation to facilitate the implementation of joint actions in various areas (e.g. pooling of shipments to overseas markets to reduce transportation costs, joint sourcing of raw materials and inputs not available in the local market, etc.). Other CDE initiatives where elements of cluster or network development are discernible, include the current or envisaged initiatives in the fishing sector (development of aquaculture and enhancement of sanitary standards) and, in the leather sector. The size of CDE projects varies greatly, depending upon the time span and the specific nature of activities to be undertaken, ranging from € 150,000 to some € 500,000. A summary presentation of some CDE initiatives with a cluster or network development element is provided in Annex F.

6 RECOMMENDATIONS FOR THE PRO€INVEST PROGRAM

6.1 Introduction

In this Section we formulate some considerations on the possible involvement of the PRO€INVEST program in cluster and enterprise network development activities. In particular:

- Section 6.2 elaborates on the possible role of PRO€INVEST in promoting broad based cluster development;
- Section 6.3 provides suggestions on the structuring of possible PRO€INVEST interventions in support of enterprise networks;
- Section 6.4 deals with some general issues, regarding the possible areas and modalities of intervention.

6.2 Promoting Broad-based Cluster Development

Introduction. Strengthening (let alone "creating") enterprise clusters is a long term and complex business. All the case studies analyzed during the Study clearly indicate that the "natural" development of clusters occurs over a long period of time, typically no less than a couple of decades. Likewise, donor initiatives in cluster development tend to take a long term approach. USAID projects typically span over a period of 3 to 4 years while UNIDO projects have covered even longer periods (up to 7 years, in the case of Jamaica). Given these parameters, it is difficult to envisage the direct involvement of a program such as PRO€INVEST in massive cluster development initiatives. Still, the program could play a useful role in supporting broad based cluster development through ***indirect actions***, such as training and institution building. Some possible areas of interventions are briefly illustrated below.

Workshops/Training Courses on Cluster Development in ACP Countries. Interest in a better understanding of the dynamics of clustering is rapidly growing in ACP countries. For example, in 2004 a workshop on cluster development was held in Botswana under the co-sponsorship of the Botswana Export Development and Investment Authority and WAIPA. A similar initiative was implemented in Tanzania in 2004, with support from The Competitiveness Institute. Finally, great interest towards "cluster building" has been shown by various institutions and business associations in Mauritius. Under these conditions, there appears to be the opportunity for some PRO€INVEST initiatives aimed at promoting a more systematic understanding of clusters and at disseminating best practices on cluster facilitation and development. The initiative could take the form of a series of workshops or training courses, broadly similar to the training programs recently implemented by UNIDO – ILO but with specific focus on ACP countries. Participants could include practitioners from institutions active in SME development, such as local development agencies, business associations, development finance institutions, chambers of commerce, etc. The initiative could see the active participation of EU entities involved in cluster development, thereby lying the foundations for future bilateral contacts and possible partnership agreements.

Establishment of An ACP Cluster Forum. In ACP countries the experience with enterprise clusters is still limited and largely confined at the country level. However, in recent times signs of increasing international connections have become noticeable. In Western Africa there are stable commercial relations between some Nigerian and Ghanaian clusters in light manufacturing. In Eastern Africa, common problems are faced by the fishing and fish processing industry around the lake Victoria and linkages exist also in other sectors (e.g. the cut flowers clusters in the Kenyan highlands and in the Kilimanjaro area in Tanzania). In the Indian Ocean region, after the crisis of 2002, the linkages between the Mauritian and Malagasy clothing clusters are becoming increasingly

strong. The intensification of international contacts and the related exchange of experiences has a positive impact on cluster and network development across ACP countries and this process could be usefully supported through the establishment of an "ACP Cluster Forum". In an initial phase, the proposed forum would operate as a light structure, with a presidency & secretariat held on a rotational basis and annual meetings. Members would include intermediary organizations representing the interests of various clusters (e.g. the mechanical engineering associations in Suame or the chamber of commerce of Nnewi) while meetings could also be attended by representatives of promotional bodies or research organizations, who could fulfill a useful catalytic role. As contacts intensify and common interests and problems emerge among members, the forum could gradually become a more stable organization (an "ACP Cluster Club") and could become the promoter of specific initiatives. The PRO€INVEST could facilitate such a process by supporting the initial steps (foundation meeting and related promotional activities) and, possibly, by funding some special initiatives. In certain cases, these initiatives could also see the participation of clusters from EU or third countries, thereby enhancing the opportunities for international cooperation.

Twinning of EU and ACP Clusters. Over the last decade a clear trend towards the internationalization of European clusters has emerged. Indeed, the growing competitive pressure exerted by emerging countries such as China and India has forced many European SME to reconsider the fundamentals of their business model, with the ensuing relocation of a significant share of production capacity to low labor costs countries. So far the phenomenon of "cluster internationalization" has been largely confined to Eastern Europe and Mediterranean countries, but under certain conditions this trend may also involve ACP countries, at least in certain light manufacturing and service activities. The PRO€INVEST program might contribute to facilitate the establishment of linkages among potentially complementary areas, through some form of twinning arrangements involving representatives of EU clusters and their ACP counterparts. In particular, an important role could be played by service centers and consulting firms well rooted in the reality of EU clusters and with substantial experience in the promotion of cross border operations and in the implementation of international cooperation programs. Examples of entities that could play a proactive role in promoting linkages between EU and ACP clusters include the Italian *Centro di Informazione Tessile dell'Emilia Romagna* (CITER) a technical service center for the clothing industry that has been involved in cluster development activities in various developing countries (Tunisia, India, Argentina, etc.), and the French *Cité de l'Initiative*, a Roubaix-based textiles and clothing organization with significant experience in cluster promotion in the Indian Ocean region.

6.3 Direct Support to Enterprise Networks Development

Introduction. Actions aimed at supporting the development and strengthening of enterprise networks appear as particularly well suited for PRO€INVEST and, indeed, could offer an interesting opportunity for expanding the volume of operations in support of SME. As indicated in Section 4, enterprise networks may be established to face problems or exploit opportunities in a wide range of activities, from marketing and commercialization to environmental protection. Irrespective of the specific purpose, initiatives aimed at establishing or supporting enterprise networks share some common traits. Some considerations regarding the operational features of possible PRO€INVEST initiatives in this area are provided below.

Time Horizon. The establishment of enterprise networks is based on "mutual trust", which is the main prerequisite for the effective implementation of any form of joint action (be it an export consortia or a centralized procurement unit). In turn, building "mutual trust" is a complex exercise, requiring continuous interactions with enterprises and institutions. Under certain circumstances (e.g. when a certain geographical area is characterized by a high degree of social cohesion), the time horizon can be somewhat shortened but in general, in order to achieve meaningful results, a period

of 2 to 3 years must be regarded as a minimum. From the viewpoint of the PRO€INVEST program, the need for adopting such a multi annual view may appear as an obstacle. However, as network development activities typically involve a sequence of stages, the overall time horizon can be subdivided in phases. In practical terms, this means that enterprise network development initiatives may well consist of a sequence of annual programs. What is essential is that activities financed under separate annual budgets must be coherent with the long term plan.

Identification and Scale of Interventions. Following Porter, "there should be some seeds of a cluster that have passed a market test before cluster development efforts are justified"[13]. *Mutatis mutandis*, similar considerations also apply to interventions aimed at supporting enterprise networks. In particular, the provision of support appears to be justified whenever a group of enterprises display a "shared vision" regarding common problems and opportunities. In turn, this is comparatively easier when enterprises show some degree of complementarity (e.g. manufacturers of different products sold through the same distribution channels) rather than being in direct competition with each other. The minimum size of such enterprise groupings may vary across sectors and is also influenced by the nature of the problems/opportunities at hands, but in general a group of 5 to 10 enterprises could be considered as a good starting point.

Nature of Activities. Broadly speaking, activities aimed at fostering the development of enterprise networks fall in two categories, namely: (i) facilitation activities, and (ii) operational activities. ***Facilitation activities*** relate to the efforts deployed to create the right atmosphere for inter enterprise cooperation. Facilitation is the responsibility of expatriate and/or local consultants acting as "network brokers", ideally with the support of local institutions. Depending upon the nature of the enterprise network being supported, ***operational activities*** may involve a variety of actions, such as the organization of trade missions, the conduct of market surveys, the organization of workshops or training courses on quality or environmental issues, etc. In turn, operational activities may include both activities aimed at the whole target group and the provision of direct support to specific enterprises. The relative importance of facilitation and operational activities is expected to evolve over time, with facilitation occurring mainly in the early stages and operational activities becoming increasingly important as the initiative progresses. Still, it is important that some operational activities be implemented in the early stages to generate quick results ("quick wins"), in order to stimulate interest and participation from beneficiaries. In practical terms, in the case of PRO€INVEST, a hypothetical 3-year program could concentrate facilitation activities and one or two "quick wins" activities in the first year, with common or enterprise-specific operational activities taking place in the subsequent two years.

Box 2 Phases and Activities in Enterprise Network Development

The distinction between facilitation and operational activities introduced maybe complemented by a taxonomy of actions to be undertaken to support network development. In general terms, the development of enterprise networks can be seen as a 5-step process, going from identification and promotion to self management. The process is briefly described below[14].

Identification, Promotion and Motivation Phase. This involves the identification of a group of enterprises facing similar constraints or opportunities and their sensitization regarding the benefits of cooperation and joint action. This is normally done through a combination of general meetings with groups of enterprises (and, whenever possible, relevant local institutions) and of bilateral contacts. As a result of these efforts,

[13] Porter M. E., "Location, Competition, and Economic Development: Local Clusters in a Global Economy, *Economic Development Quarterly*, Volume 14, February 2000, page 26.

[14] The analysis presented here largely reflects, although with some modifications, the approach adopted by UNIDO. For further information, please refer to www.unido.org, section on cluster and network development.

enterprises are expected to group around the issues that they have in common and a nucleus of enterprises displaying a "shared vision" emerges.

Diagnostic or Strategic Planning Phase. This phase involves: (i) the detailed analysis of target enterprises and of the threats/opportunities faced, (ii) the finalization of a common work plan, and (iii) the establishment of a formal structure for the enterprise network. The nature of the work plan and the group structure depend upon the consensus expressed by network participants. In certain cases, the establishment of a separate legal structure (e.g. a consortium or a EIG) may not be necessary or even desirable, and simpler arrangements (of the contractual type) may well be sufficient.

Pilot Projects Phase. This phase is intended to generate some early tangible results, in order to further motivate network participants and consolidate their willingness to cooperate. The type of pilot projects depends upon the nature of the network being assisted and may involve the joint participation in a trade fair, the launch of a common website, the creation of a joint catalogue, etc. Although logically separated from the previous phases, in certain cases the Pilot Project Phase may somewhat overlap with them, so that the "quick wins" help in overcoming the initial resistance towards cooperation.

Strategic Projects Phase. The pilot projects are expected to pave the way to more structured cooperation. This typically involves actions aimed at (i) increasing the degree of specialization of network participants, and (ii) creating or strengthening common facilities. Once again, the nature of these actions depends upon the nature of the network being assisted. For instance, actions related to common facilities may focus on the creation of a laboratory for technical or sanitary tests or on the establishment of a joint logistical structure to sustain export sales. As this phase typically involves some investments in capital goods, the donors providing only technical assistance are expected to assist network participants in mobilizing the necessary financing, linking up with commercial/development banks or with other "development funds" that might be available.

Pre-Exit or Self Management Phase. In this phase network participants are expected to gradually take over management responsibilities. Therefore, support actions are mainly directed at strengthening institutional, financial and procedural aspects (accountability rules, decision making procedures for future joint initiatives, mechanisms for the financing of day-to-day operations and "strategic projects", etc.). At the end of this phase the network should be able to stand on its feet and continue to do business on its own. This does not mean that the network will be entirely self financing (even in industrialized countries enterprise networks typically rely on public funding for certain initiatives – e.g. public contributions for R&D joint projects or export promotion efforts) but rather that the network should be able to autonomously identify and access available sources of financing.

It is important to note that the above describes the process in general terms, assuming that network development efforts start from scratch. However, in certain cases, the availability of prior information on the potential beneficiaries and/or the existence of contacts with them may well reduce considerably the efforts to be deployed in the early stages. As already mentioned, this appears to be the case of the PRO€INVEST program, that in several cases could capitalize on the experience accumulated by CDE in many sectors and countries.

Budget Considerations: Total Amount. The analysis of donor operations suggests significant variations in the size of projects. As mentioned above, UNIDO projects in enterprise network development are relatively small, with budgets in the order of US$ 200 – 250,000 over a period of two to three years. Although these projects have achieved some significant results, sometimes projects documents suggest a certain lack of funding to adequately sustain activities. USAID projects tend to be much bigger, easily with budgets in excess of US$ 1 million per year, but they tend to be involved in heavy "cluster building" activities. In the case of PRO€INVEST, a reasonable budget for possible enterprise network development initiatives could in the order of € 150,000 per year. This would broadly correspond to about half/two thirds the size of the budget for a sub-sector partnership meeting or to about 3 to 4 times the budget reserved for individual support to companies. In certain cases, when the number of potential beneficiaries is large and/or more

intensive effort is anticipated, larger budgets could be envisaged, up to some one million euros.

Budget Considerations: Composition. Budget composition broadly parallels the nature of activities to be performed, with two main cost components, namely: (i) the cost of facilitation activities, and (ii) the cost of implementing operational activities. The first component includes the cost of expatriate and local consultants involved in promotional and awareness building activities and related costs (e.g. renting of venues, conduct of initial diagnostic studies, etc.). The second component relates to cost items such as the renting of fair stands, the printing of promotional materials, the development of websites, the conduct of technical tests, etc. In the case of UNIDO projects, some small capital expenditures (such as the purchase of some laboratory equipment) are sometimes included in this component. The ratio between the two components is likely to evolve overtime, with facilitation costs occurring mainly in the early stages and operational costs becoming bigger as the initiative progresses. A preliminary review of budgets for some UNIDO projects suggests an overall 1/3 – 2/3 ratio between facilitation and operational costs and, in general, this could be regarded as a benchmark also for possible PRO€INVEST initiatives.

6.4 General Issues

Target Sectors. Regarding the possible sectors of intervention, there are no univocal conclusions. USAID's experience suggests that cluster/network development is comparatively more difficult in traditional sectors. However, this seems to at least partly reflect the fact that USAID initiatives are more often than not involved in the "creation" of clusters/networks from scratch. Under these conditions, it is not surprising that highly educated entrepreneurs in innovative sectors such as ICT display, at least *prima facie*, a greater inclination towards some form of collective action than rustic, hard nosed businesspeople in, say, metal working or garment manufacturing. On the other hand, UNIDO projects have achieved positive results in a wide variety of traditional sectors (from food processing and to shoemaking), while more fashionable, high tech sectors have been largely neglected. In the case of PRO€INVEST, based *inter alia* on the results of the regional sector studies, interesting opportunities appear to exist in tourism, textiles and clothing, wood processing, and leather products. However, these indications must be regarded as merely indicative and cluster or network development actions should be considered favorably whenever the merits of the specific case can be reasonably established.

Need for A Program Initiated Approach. An element common to nearly all initiatives aimed at supporting clusters or enterprise networks in ACP countries is the crucial role played by external actors. Indeed, as local institutions are too weak, projects are identified by donors or public authorities and implemented by consultants or specialized institutions contracted for the task. This finding has major implications for PRO€INVEST, as its involvement in cluster/enterprise network development activities would imply an at least partial shift away from the current demand-driven approach towards a program-initiated approach. In practical terms, this means that only in few cases the proposed initiatives could fit into the existing mechanism for project selection (based on proposals submitted by intermediary organizations), while in most cases they would have to be implemented by consultants directly hired by PRO€INVEST.

The Importance of Timeliness. Some external shocks are often required for the economic agents in a certain area and sector to seriously start thinking about the potential benefits of collective action. Indeed, experience shows that enterprises are more likely to respond to threats than to opportunities. Irrespective of the nature of the external shock (increasing competition from cheap imports following trade liberalization; opening up of a new market following some trade agreement, such as AGOA), whoever is involved in cluster/network development must be quick in spotting and seizing the "window of opportunity". Subsequently, the relevant resources must be rapidly deployed

in order to devise the practical solutions that can lead to quick wins and, therefore, facilitate sustained actions. Thanks to its "facility" nature, the PRO€INVEST program is in principle well suited to respond rapidly to emerging opportunities. Still, some streamlining in contracting procedures could useful, in order to be able to promptly respond to the identified needs.

Possible Synergies with CDE Activities. The explicit adoption of a cluster/enterprise network development approach by PRO€INVEST could generate significant synergies with other CDE activities. On the one hand, the program could capitalize on the wealth of sector-specific expertise and field experience available within the CDE. This would greatly help in enhancing the relevance of the envisaged PRO€INVEST interventions and could also contribute to reduce costs at the design and preparation stage. On the other hand, as illustrated elsewhere in this Study, some CDE projects already include a more or less explicit cluster/network development element. Therefore, future CDE activities could benefit from a closer integration with PRO€INVEST, with potentially significant gains in efficiency and effectiveness.

ANNEXES

ANNEX A – CASE STUDIES

In this Annex we provide a series of profiles summarizing the situation in ten ACP clusters. The clusters analyzed include:

- Garments manufacturing in Eastlands – Nairobi, Kenya;
- Tanning and leather working in Zinder, Niger;
- Metalworking in Kamukunji – Nairobi, Kenya;
- Vehicle repair services in Thika, Kenya;
- Metalworking in Suame – Kumasi, Ghana;
- Automotive components manufacturing in Nnewi, Nigeria;
- Footwear production in Aba, Nigeria;
- Automotive components manufacturing in the Eastern Cape and in KwaZulu-Natal, South Africa;
- Clothing manufacturing in Western Cape, also in South Africa.

The cluster profiles follow a standard format, with the provision of some basic data, a brief review of their origins and development, the illustration of salient features, and a summary of institutional and policy related aspects. Two preliminary aspects are in order, namely:

- the profiles are not intended to provide an exhaustive description and analysis of the clusters analyzed. Rather, the attention is focused on aspects that appear to have a greater relevance for the purpose of this Study, namely the presence and nature of inter firm linkages and the presence (or absence) of externalities related to the clustering process;
- the profiles were prepared based on secondary sources only (namely: articles and papers authored by academicians, project and/or policy documents prepared by donors or government entities). Therefore, the profiles inevitably reflect the intrinsic limitations of the source used. Furthermore, some the secondary sources used in the analysis reflect the situation prevailing in the late 1990s or in the very early 2000s. Efforts have been made to update the information using whatever other sources could be located (from articles published in newspapers and economic magazines to degree thesis), but this was not always possible.

CASE STUDY #1 – CLOTHING MANUFACTURING IN EASTLANDS - NAIROBI, KENYA

Basic Data

Location	Eastlands, a suburb on the eastern side of the city of Nairobi (also referred to as Muthare Valley)
Sector and Products	Clothing (garments for men, women and kids and specialized products as uniforms, overalls, etc.)
Firms and Employment	600 micro and small scale producers plus a handful of medium scale producers, with a total employment of perhaps 3,000
Market Orientation	Domestic market, with significant sales mainly in rural areas and secondary towns
Volume of Activity	No data available, but the Eastlands cluster is certainly one of the main suppliers of clothes in central Kenya

Origins and Developments

Eastlands is one of the poorest districts of Nairobi. The garment cluster is located in two areas (Uhuru and Gikomba) near the city council market. Clothing traders started operating here back in 1974. In the late 1970s some of these traders entered into production and the cluster witnessed a remarkable growth throughout the 1980s, largely thanks to the restrictive trade regime prevailing at that time. The situation changed significantly during the 1990s, when the declining domestic demand due to the economic crisis and the liberalization of imports, with the entry of cheap goods from Asia (including second hand clothes) brought about an abrupt downfall in production.

The cluster is populated by three main types of firms, namely:

- the most common one is the *custom tailor*, basically an individual tailor, sometimes employing a few apprentices and generally producing on order. In a few cases, these tailors may operate as subcontractors for larger firms, being then designed as *contract workshops*;
- the *micro-manufacturers*, generally specialized in low-priced garments and concentrating on one or two products only, such as boys' school uniforms or men's trousers. These shops have often introduced some basic division of labor, for example dividing the manufacturing process into cutting, assembling and finishing;
- the so called *mass producers*, in fact a handful of medium sized enterprises manufacturing standardized products for the middle income market.

Salient Features

- ***Access to Supplies***. The clusters has attracted a certain number of specialized suppliers of intermediate products. These include some 10 producers of basic components (buttons, thread, etc) and half a dozen traders also dealing with basic inputs. In addition, several external traders dealing with working tools or components often visit the Eastlands area, as local producers and retailers generally offer higher prices. Specialized services are basically limited to the lease of transportation means (with trucks and pickups on rent outside the garment market).
- ***Labor Market***. Labor is abundant in the area and the workforce basically consists of unskilled workers. Labor market pooling mechanisms do not seem to foster any significant specialization and skill upgrading.
- ***Technology***. The technology adopted is very basic, ranging from foot-powered machines to second hand, imported sewing machines. Under these conditions, there is very little scope for knowledge spillovers within the cluster.
- ***Market Segments***. The product range includes three main traditional segments, men's, women's and children's wear, plus a series of specialized product lines, such as school uniforms, overalls, wedding dresses, safari wear for tourists, and traditional African dresses (*Vitenge*). Under pressure from cheap imports, a number of small producers have shifted away from the more standard clothes and moved into the production of pullovers and cardigans, which are less exposed to competition from imported goods.

- ***Market Access***. Eastlands is a well known place where cheap clothes can be bought by either individual customers or traders, and it attracts a number of clients from Nairobi as well as from other areas. A study conducted in 2001 showed that all micro and small producers were selling, to a varying degree, to final consumers. At the same time, about one quarter of firms were also selling to wholesalers and traders and a similar share was also dealing with retailers located in smaller towns and rural areas. Only a handful of local producers reported sales to foreign buyers.
- ***Vertical and Horizontal Linkages***. Vertical linkages are undeveloped, with a limited number of smaller firms producing on orders for others. Horizontal linkages mainly concern the borrowing and lending of basic working tools (e.g. scissors, measuring tapes, etc) and, sometimes, of electric cutting shears or button-holers. Also, some entrepreneurs have been observed to ask advice or technical assistance about machine breakdowns or about new designs from colleagues. However, overall a certain lack of trust among local producers prevails and this prevents stronger and more stable interactions. As a whole, in horizontal relationships rivalry appears to prevail on collaboration.

Role of Institutions/Public Policies and Donor Interventions

The cluster has developed naturally, without any form of public intervention or support from donors. At a certain point there was an attempt, supported by medium sized producers, to establish a local business association, but the idea appears to have failed. Some NGO and micro lending schemes are reportedly active in the area, but these interventions do not seem to be part of a coordinated development effort.

CASE STUDY #2 – TANNING AND LEATHERWORKING IN ZINDER, NIGER	
Basic Data	
Location	Zinder, the second largest city of Niger, situated north of Kano (Nigeria)
Sector and Products	Leather and leather products (rugs, book covers, cushions, belts, wallets, sandals, bags, etc.)
Firms and Employment	Over 100 firms, mostly very small. Total employment in unknown, but probably in the order of 2,500 - 3,000
Market Orientation	Producers sell both in domestic and export markets
Volume of Activity	No data available

Origins and Developments

Over the last few decades a geographically localized and socially cohesive community of small businesses specialized in the leather and tanning sector has emerged in Zinder, a major commercial center, located on an old trans-Saharan caravan route. Early developments can be traced back to the post WWII years, when some artisans started manufacturing innovative items, such as patchwork goatskin rugs, book covers, cushions, shoulder bag, belts, etc. Some producers specialized in producing exotic hides, which were mainly destined to the export markets, while others supplied local markets, where customers mainly purchased sheepskin prayer rugs, generally manufactured on demand. Over time, new methods of production and raw materials, such as the use of acetylene ash, were introduced and this led to the emergence of some larger operations. In particular one tannery appears to have become an important player in the cluster. The tannery was refurbished with Italian equipment and the contacts established on that occasion helped in opening up the cluster and in forging links with some Italian leather-based clusters.

Salient Features

- ***Access to Supplies***. Raw materials (sheep skins) and basic inputs for tanning activities (such as acetylene ash) are largely sourced locally. Exotic skins (such as antelope and python skins) are imported from other African countries (e.g. Nigeria) while more sophisticated elements and machinery are imported from Western countries.
- ***Labor Force***. The labor force includes skilled artisans and apprentices. Training remains of the traditional, informal type but it has been at least partly obtained outside the cluster. Indeed, it is quite common for tanners to spend a certain period working at tanneries in other cities. It is believed that out-migration of skilled labor force has been one of the reasons enhancing the reputation of the cluster.
- ***Knowledge Sharing and Spin Offs***. Labor mobility and the apprentice system may be regarded as one of the main channels through which skills, ideas and competences spread out in the cluster. In fact the intra-cluster turnover is quite high. Spin-offs also contribute to the spreading of information and knowledge. It is a very common phenomenon, involving young tanners who after having been trained by seniors leave to start their own business.
- ***Reputation and Access to Market***. Since the 1970s, the cluster has developed a strong reputation, which has attracted a far-flung network of suppliers, customers and brokers. Under these conditions the mere fact of being located in the cluster has become a distinctive advantage, greatly facilitating access to the market.
- ***Vertical Linkages***. Well established linkages exist between local suppliers of raw materials and tanneries. The nature of these linkages goes well beyond the simple buyer-seller relationship and often includes an element of "supplier credit". Indeed, tanners typically pay only 50% of the price of raw materials at the moment of the purchase, with the balance being settled only after the hides have been tanned and sold. Such informal credit system appears to work fairly well and is the result of a high degree of social cohesion, also based on religious considerations.

- ***Horizontal Linkages***. There are some examples of cooperation among firms, although they are typically not formalized. In particular, senior tanners and leather workers often share fixed assets and the corresponding maintenance costs, while owning their own working tools. This system allows them to reduce the sunk cost of investment and the risks associated with possible faults. In some cases tanners also purchase jointly basic inputs, such as vegetal tanning agents.

Role of Institutions/Public Policies and Donor Interventions

There are no records of public polices or donor interventions aimed at supporting the cluster. Common initiatives involving local enterprises appear to be implemented primarily through informal mechanisms and seem to overlap with social and religious functions (such as the fundraising activities for the construction of a new mosque).

CASE STUDY #3 – METALWORKING IN KAMUKUNJI - NAIROBI, KENYA	
Basic Data	
Location	Kamukunji district, in the Nairobi metropolitan area
Sector and Products	Metalworking, with a wide variety of products (tin trunks, charcoal stoves, security bolts, cooking pots, griddles, bicycle carriers)
Firms and Employment	Over 2,000 micro enterprises, with a total employment of around 3 – 4,000
Market Orientation	Local market only, with some customers coming from neighboring areas
Volume of Activity	No data are available, but total turnover is unlikely to exceed US$ 10 million

Origins and Developments

The clustering process started in 1985, when several artisans (*jua kali*) moved to Kamukunji from other parts of Nairobi. As in other cases (see the profile on the Thika cluster), the relocation process was not a spontaneous one, as the artisans were forced to move away from more central locations by the municipal authorities. At the beginning, even the Kamukunji Council wanted to send them away, but the district commissioner and later even the President Moi decided to support the *jua kali*. This endorsement also led to some tangible results, with the donation of the land and artisans' sheds. In political terms this was a major turning-point, because the presidential intervention gave for the first time legitimacy to the open-air small-manufacturing sector.

The Kamukunji cluster is populated by micro enterprises using craft-based production methods and very simple technology. Fewer than 10% of them have electricity connections and the majority use hand tools or simple hand-operated machines to make products of new and/or used sheet metal. Production processes are slow and products of poor quality. Workshops with electricity undertake welding, engineering, and fabrication work, frequently producing on order rather than for the market. However, the demand for such items is decreasing as consumers gain access to higher standard goods from supermarkets and retail shops. As a result, the share of the market currently served the Kamukunji producers appears to be shrinking. In principle, the cluster could have the potential for achieving some scale economies, but this would require a structural change in the organization of production, with a greater degree of division of labor.

Salient Features

- ***Access to Supplies***. Inputs are procured locally, mainly from traders who have established a stable presence or visit regularly the cluster. The local *jua kali* association is involved in the collection and recycling of scrap metal.
- ***Labor Market***. There is no labor specialization in the cluster. The low skills required to enter the business discourage any training activity. In addition, the presence of very low entry barriers, coupled with the low skill requirements, favors the multiplication of micro enterprises.
- ***Technology***. The oldest artisans in Kamukunji were trained by their Asian predecessors in the 1940s and 1950s. Most of them appear to use the same skills and techniques learned then. In general, Kamukunji exhibits little technological development. If anything, there seems to be a dampening effect of low-level technology that reduces firms' ability to achieve economies of scale. One exception has been the development of wheelbarrow production. Wheelbarrow making started in the mid 1980s when some Kamukunji artisans copied a wheelbarrow purchased from a Nairobi shop and then modified the design to make it stronger and easier to produce. At present, in Kamukunji a dozen workshops are producing wheelbarrows, in three different sizes. They jointly purchase the raw materials (iron sheet, pipe, flats) and weld the final product together.
- ***Market***. Kamukunji metalworking shops sell in the local market. The place is well know and customers from Nairobi and beyond come Kamukunji since they know they can find cheap metal products.

- ***Inter-firm Linkages***. There is no evidence of emerging cooperative linkages in the cluster. Division of labor is totally absent, as the artisans produce everything on their own. A greater specialization would require *inter alia* the standardization of various products and components, but this is difficult to achieve with the hand tools currently employed. External linkages only relate to the purchase of raw materials and intermediate inputs and all these transactions appear to be market-based, without any form of cooperation or technical assistance.

Role of Institutions/Public Policies and Donor Interventions

Association activity among Nairobi's metalworkers has a long history, and indeed the first grouping was established during the colonial period. During the 1980s, the Kenya government encouraged the establishment of *jua kali* associations, which were to serve as a channel for supporting the growing "informal" sector.

The Kamukunji *Jua Kali* association was formed in 1993. It appears more as a self help organization, extending assistance to members in case of difficulties, than a real business association. Business support activities have been limited to the provision of security services (a basic but important service, given the lack of lockable buildings) and to the collection and recycling of scrap metal, a function entrusted to a women's group. In the early days the association tried to facilitate access to supplies, by engaging in the bulk purchase of products that were then re-sold at cost to artisans. However, these moves were met by the reaction of traders that traditionally supply the micro enterprises located in Kamukunji and whose margin were being eroded, and the practice was quickly discontinued.

CASE STUDY #4 – VEHICLE REPAIR AND CAR PARTS MANUFACTURING IN THIKA, KENYA	
Basic Data	
Location	Kigandani ward in Thika, a medium sized city (population 80 – 100,000) located some 50 kilometers north east of Nairobi
Sector and Products	Vehicle repair services (mainly, for *matatus* and heavy commercial vehicles) as well as manufacture of spare parts
Firms and Employment	Some 100 vehicle repair shops, with approximately 200 workers. Another 15 enterprises are involved in the production of car parts
Market Orientation	Local and regional market, with clients also coming from other towns
Volume of Activity	No data are available

Origins and Developments

Thika is a young cluster, as its origins date only to 1988, when the city council required *jua kali* operators to move out the town's main market and concentrate in Kigandani ward. A significant impetus to development has been provided by the progressive liberalization of imports in the automotive sectors. In particular, a major turning point occurred when the so called "Dubai cars", were allowed to enter the country. These in fact are second hand vehicles requiring full reconditioning.

The Kenyan vehicle repair sector includes three types of firms, namely:

- the *large garages*, which are mostly associated with major vehicle assemblers and work for the high-end repair market. These operators are the only ones in the position to provide a guarantee for their work, in addition to provide official spare parts and, in some cases, to offer replacement of vehicles;
- the *medium size garages*, sometimes connected with petrol stations, include both general garages and specialized ones, which offer services for specific groups of customers, mostly commercial vehicles users;
- the last group is made of *individual mechanics*. They tend to service the oldest vehicles and may well specialize in specific kind of vehicles and/or in a single aspect of repair.

The Thika cluster consists primarily of individual mechanics and medium sized garages.

Salient Features

- ***Access to Supplies***. Although a large part of inputs used in vehicle repair work is imported, overtime a group of local manufacturers of spare parts and other intermediate products has developed in Thika. At present there are an estimated 15 small firms involved in the manufacture of a series of car parts (e.g. springs, washers and plastic bushes, etc).
- ***Labor Force***. Workers go through the usual apprenticeship system and skill formation is still largely dependent on informal, on-the-job training. Nonetheless, a good number of artisans have acquired a good level of workmanship.
- ***Spin Offs***. As in many other artisan trades, in car repair services it is quite common for the more dynamic workers to leave their jobs and set up their own business. Although this does not necessarily means the severance of contacts with the former employer, the continuous emergence of new shops inevitably contributes to make the environment more competitive. Indeed, according to a study conducted in the early 2000s, about 40% of the firms then in operations had been established during the last decade.
- ***Technology***. Vehicle repair is essentially a custom production, with each job having its own specifications. The level of technology varies accordingly. Only the large garages make use of modern machinery (e.g. for diagnostic services), while the bulk of *jua kali* use fairly rudimentary, highly labor intensive techniques. Under these conditions, the possibility for technical spillovers is inevitably fairly limited.

- ***Market***. Owners of *matatus* and heavy trucks are the main clients and only half of Thika's repair firms are also involved in servicing saloon cars. Thika's artisans provide services to local clients but also to customers coming from other towns, which are attracted by the good reputation of the place. This appears to be one of the main positive externalities accruing to the firms located in the cluster.
- ***Vertical & Horizontal Linkages***. The standardized nature of the car parts goods does not require a deeper integration between manufacturers and car repair shops and therefore straightforward market based transactions prevail over more collaborative user-producer interactions. On the other hand, cooperation among repairers is quite common, and indeed a web of subcontracting relations is in place. Thika being a relatively small town, cooperation is facilitated by strong and stable ties, with social factors playing an important role.

Role of Institutions/Public Policies and Donor Interventions

Local firms have established two associations, with different purposes. The *Thika Welfare Jua Kali Association* is primarily a self help organization, providing assistance to members in case of sickness or other difficulties. The *Thika Mariko Jua Kali Association* is a "site association". Initially created just to obtain recognition from authorities, later the association later has been primarily involved in the settlement of land tenure problems.

As for donor interventions, in the mid-late 1990s the Belgian government sponsored a major re-development of the area, aimed at building permanent workshops for about 70 firms. However, project implementation was reportedly plagued by cost overruns and delays, which negatively affected a number of local producers (who had temporarily relocated to another area to allow construction to take place).

CASE STUDY #5 – METALWORKING IN SUAME – KUMASI, GHANA

Basic Data

Location	Suame, a suburb of Kumasi, Ghana's second largest city (population about 700,000)
Sector and Products	Metalworking, mechanical engineering and vehicle repair services
Firms and Employment	Some 10 - 15,000 artisans and enterprises, with a total workforce of more than 80,000
Market Orientation	Domestic markets, but with clients also coming from neighboring countries
Volume of Activity	No data are available

Origins and Developments

The origins of this cluster can be traced back to the 1920s and 1930s, when a class of blacksmiths, metalworking craftsmen and vehicle mechanics slowly began to emerge in Kumasi. Initially scattered in various locations across the city, in 1935 these artisans moved to a new location, a former armoury called "Magazine". Since then the term has been used to identify the cluster, commonly referred to as Suame Magazine.

The cluster recorded a significant development during the 1970s and 1980s, when the economic crisis made imported goods virtually inaccessible. It was during that period that number of artisans entered the production of small agricultural equipment and tools and the manufacture of simple households items (such charcoal stoves) while others started producing spare parts for vehicles. The subsequent improvement in economic conditions helped boosting demand but the trade liberalization of the 1990s had a negative impact on Suame Magazine, as imported goods of "industrial quality" became rapidly available in the market. As a result, there has been a certain shift from manufacturing to the vehicles repair services, the latter being intrinsically less exposed to competition from outside.

At present, enterprises in the Suame Magazine cover four main lines of business, namely:

- Metal working and foundry products (iron gates, metal safes, petrol tanks, shovels, various spare parts for vehicles, etc.);
- Manufacture of food processing and agricultural equipment (animal feed mixers, presses for palm oil and cassava, hand pumps, etc.);
- Manufacture of household items (charcoal stoves, gas stoves, gas-fired ovens, frying pans, etc.);
- Servicing of vehicles (engine overhauling, auto electrical works, auto body straightening and painting, etc.).

Manufacturing enterprises can be divided in three groups: blacksmiths who use forges and hand tools, a middle group who had achieved a modest level of technological enhancement, mostly with the use of locally made machines, and a small group of firms using machine tools, typically referred to as "engineering" workshops.

Despite the ups and downs connected with major changes in the macroeconomic environment, Suame Magazine has grown to become the largest informal manufacturing area in Ghana and one of the biggest in the whole of West Africa.

Salient Features

- ***Access to Raw Materials***. Although some firms use domestically produced steel rods and a limited amount of new steel imported by individual traders, the bulk of the materials used in the cluster are scrap. Scrap metal is sold by several traders located within the cluster area.

- ***Access to Other Supplies***. Suame Magazine has attracted a sizeable number of traders selling a variety of accessories, car parts and engineering tools. Some hand tools, engineering materials and car parts are imported from Eastern Nigeria and many Nigerian traders visit regularly the cluster, while some have even established retail stores in Suame.
- ***Labor Force***. There is some labor specialization in the cluster. Training remain largely of the informal type and only few workers have attended vocational training courses. Still, the level of workmanship is significant, especially in the vehicle repair sector. According to a survey conducted in 2001, about 30% of those trained by the Suame Magazine master craftsmen end up working for firms outside the cluster.
- ***Technology***. For most companies the technology is pretty basic and many manufactured products cannot match the quality standards typically required in modern manufacturing. Some companies have managed to improve their production process but machined and cast parts still show a high variability. The Intermediate Technology Transfer Unit (ITTU – see below) has helped raising the technological level and actively supported the development of the foundry business, by introducing the casting of corn mill plates and other ferrous and non ferrous castings.
- ***Market***. Suame Magazine's micro enterprises predominantly sell the products in the domestic market, primarily to individuals and other micro enterprises. Still, a survey conducted in the early 2000 found evidence of significant sales to clients coming from neighboring countries, from Mali to Cote d'Ivoire. While the amount of these informal exports cannot be guessed, it is nonetheless an indication of the important role played by the cluster in the wider regional context.
- ***Inter-firm Linkages***. Metalworking firms seem not to have strong linkages with each other, perhaps as a result of the strong heterogeneity existing in the cluster. There are some examples of horizontal cooperation, such as a mechanics cooperative established to purchase and share equipment, such as lathes and crank-shaft grinders, but these appear to be more the exception than the rule.

Role of Institutions/Public Policies and Donor Interventions

Suame Magazine is an old cluster and, unlike many of its counterparts in Africa, it can boast a significant number of institutions in one way or the other involved in supporting enterprise development. The *Magazine Mechanical Association* is the oldest association, established as early as in 1957. Initially mainly a self help organization with social purposes, MMA has gradually become involved in other matters, and currently controls a few hundred plots in the Suame area. With a membership of some 10,000, mainly vehicle mechanics, MMA is run by a chairman assisted by a small permanent secretariat, housed in an owned-building. In the early 1980s the new generation of vehicle mechanics established the *Ghana National Association of Garages* (GNAG). GNAG is a national association, with members in many cities, but again its secretariat is based in Suame Magazine. A third association based in the cluster is the *Association of Micro and Small Metal Industries* (AMSMI), grouping workshops involved in metal fabrication and welding, foundry business, metal machining, etc. With a membership of some 60 (in the early 2000), AMSMI is affiliated to the national SME federation and collaborates actively with ITTU and other government-sponsored initiatives. Finally, the car parts dealers are grouped in the *Magazine Spare-Parts Dealers Association*.

Significant support to enterprises in the cluster has been provided by the already mentioned ITTU, a technical support and consulting unit established in the mid 1980s by the local university, with government support. Despite the limited means available, ITTU has been widely regarded as a successful experience and the model has been replicated in other regions. In 2003 UNIDO launched a project aimed at supporting the strengthening of ITTU and involving *inter alia* the purchase of some equipment to be used for demonstrations and tests.

Another public entity with a direct presence present in the cluster is the *National Vocational & Technical Institute*, that has organized training courses for Suame's workers and artisans.

CASE STUDY #6 – AUTOMOTIVE COMPONENTS AND SERVICES IN NNEWI, NIGERIA

Basic Data

Location	Nnewi is a city located in the south eastern Nigeria (Anambra state), with a population of about 120,000
Sector and Products	Automotive components and spare parts (from cables to filters to small engines for motorcycles) as well as assembly of motorcycles
Firms and Employment	About 400 repair shops, some 100 small companies (metal workshops, foundries) and about 10-15 larger companies, employing up to 500 workers. Total employment is unknown, but probably in the order of 10,000
Market Orientation	Production is clearly oriented towards the domestic market, although some products are sometimes exported to neighboring countries, through formal and informal channels
Volume of Activity	No data available, but total turnover is likely to be in the US$ 100 million region

Origins and Developments

Nnewi is an important commercial center in south eastern Nigeria. Trading traditions date back to the 19th century, when Nnewi's merchants were actively involved in the palm oil and salt trade. The local entrepreneurial dynamism is at the heart of the early and present economic success of this city. The origins of the cluster can be traced back to the 1960s and 1970s, when local traders started importing automotive spare parts, mainly from Asian countries. Industrial development started in the early 1980s, when money earned in trade was invested in the first manufacturing operations. Entry into manufacturing was facilitated by the international linkages established during the trading period, especially in Asian countries (Taiwan, Korea, Malaysia). This international connection has greatly helped local producers in undertaking several development stages, moving from basic technologies (e.g. hand tools) to more advance ones. In recent times the Nnewi cluster was affected by the dismantling of tariff barriers and the share of imported car parts has increased at the expenses of local production. However, Nnewi appears comparatively less exposed to foreign competition than other Nigerian clusters, as a significant share of local output involves a degree of customization that imported products cannot provide.

Salient Features

- ***Access to Supplies***. The cluster is heavily concentrated, and several inputs can be found locally (e.g. motorcycle parts, cables and hoses, roller chains, filters, motorcycles engines.). The rest is imported from a variety of sources.
- ***Labor Force***. Skills are still largely acquired on the job and only a fraction of workers and technicians have undergone appropriate formal training. However, some technicians have spent periods abroad (namely, in Taiwan) and in recent times a more specialized labor market has begun to emerge.
- ***Technology***. Machinery is largely imported (often second hand) from Asian and, to a smaller degree, European countries. Relationships with foreign suppliers of equipment tend to be stable and usually also involve the provision of technical assistance. The recent increase in competition from imported products has exposed the limitations of the existing productive base and some technological upgrading appears necessary, in order to increase specialization, enhance product quality, and broaden the product range.
- ***Knowledge Acquisition and Sharing***. Contacts with foreign partners, in the forms of machinery purchase, technical assistance, traineeships and business trips, are the main sources of knowledge acquisition. Endogenous forms of learning, such as learning by interacting, are rather weak, because subcontracting relationships are not yet fully developed.

- ***Vertical Linkages***. Vertical linkages are still largely absent within the cluster, primarily because larger firms tend to be vertically integrated. Some subcontracting has begun to emerge recently, in response to the need for increased specialization and for a broader product range, but the "disintegration" of the production process is still in its initial stages.
- ***Horizontal Linkages***. There are many different examples of horizontal cooperation in the cluster. Cultural homogeneity and strong personal and family ties among clustered firms have favored the establishment of stable and frequent linkages. In the old days these linkages translated in very simple (but still very effective) forms of cooperation, for instance with several firms co-financing the trip of one of them to Asia to discuss new import orders. Nowadays, firms show a certain inclination to share technicians and equipments as well as information about sources of technology and raw materials. In certain cases, they also collaborate in product design.

Role of Institutions/Public Policies and Donor Interventions

Compared to other ACP clusters, Nnewi is somewhat an exception, because institutions have been fairly active in supporting cluster development. In particular:

- a local training institution, the MTI, offers some training courses and is promoting self employment in the field of metal working;
- the local chamber of commerce has set up an information point for small firms aimed at providing business information (e.g. about international fairs, input suppliers, new technologies, legal issues);
- in a similar vein, the chamber of commerce cooperates with the local branch of the Manufacturing Association of Nigeria in the organization of trade fairs.

Further support is expected to come from a UNIDO project that is particularly aimed at fostering inter firm linkages (namely in the form of enhanced subcontracting relationships), through the provision of business support services. The project is summarized in Annex B.

CASE STUDY #7 – FOOTWEAR PRODUCTION IN ABA, NIGERIA

Basic Data

Location	Aba, a city located in eastern Nigeria (Abia state), with a population of some 300 – 350,000
Sector and Products	Footwear (men's shoes, ladies' shoes, sandals, military & safety shoes) and, to a smaller extent, leather goods (belts, bags)
Firms and Employment	Several hundred firms, including some 10-12 medium sized enterprises, with a total employment of some 50,000.
Market Orientation	About 30 - 40% of local output is exported to West African countries, through formal or informal channels.
Volume of Activity	US$ 100 million turnover (2001)

Origins and Developments

An administrative center and garrison town in colonial times, Aba is today one of the leading industrial centers of Eastern Nigeria. Footwear production was pioneered in the 1950s and 1960s but the real development took place after the end of the Biafra Civil War, with the launch of import substitution policies and the oil boom of the 1970s and 1980s. By the mid-late 1980s Aba had become the "footwear capital of West Africa".

The production core is made of a large number of artisans and small enterprises typically employing less than 20 workers, but overtime a dozen of medium sized footwear companies have been able to grow and now employ up to 150 – 200 workers. In line with the local tradition of entrepreneurship, the Aba area is characterized by high dynamism: a survey conducted in 2001 indicated that about 60% of firms had been established after 1980. Starting with the late 1990s, Aba producers have increasingly suffered from competition from Asian imports, especially following the trade liberalization that ensued WTO accession in 1999. As a stop gap measure, in 2004 new legislation was passed to afford protection to domestic production (including shoes) for a period of five years.

Another important concentration of footwear producers is found in Onitsha, a large commercial center in Anambra State, on the river Niger. Onitsha is well known for its market, where cheap imported goods are readily available, in particular those coming from Taiwan and Hong Kong. As in the case of Aba, the development of the footwear industry took place during the 1970s and 1980s. This was paralleled by the establishment of a number of other light manufacturing operations, producing plastics, rubber and metal products and some of these companies engaged in the provision of intermediate products (e.g. shoe soles) to the footwear industry.

Salient Features

- ***Access to Raw Materials***. Aba is far from the main sources of raw materials, as most tanneries are located in the northern part of Nigeria. In addition, better quality leather is typically exported and Aba producers have long been forced to rely on lower quality leather. Over time, local producers have largely turned to the use of the so called leatherette, a synthetic leather substitute imported from Asia.
- ***Intermediate Supplies***. Difficulties with leather supplies are compensated by the availability of a vast network of suppliers of other inputs. In the Aba area there are more than 20 engineering, plastics and rubber companies supplying footwear producers with shoe modes, soles, synthetic rubber, gum, twain or thread, in-lay, buckles, and labels. Local supply is further reinforced by the presence of a network of primary importers and distributors, dealing with chemicals, buckles and other components. Another source of components is the Onitsha area, where a significant number of engineering, plastics and rubber companies are located. However, the progressive development of component firms in Aba itself has gradually reduced the volume of inter-city trading. Relations between suppliers and footwear producers in the Aba area appear to be reasonably cooperative, also involving some fruitful exchange of information regarding new processes and products.

- ***Labor Market***. In Aba labor costs are fairly low (around half the level prevailing in Lagos) and, together with the good level of workmanship, this is at the origin of the subcontracting relationships established by some local producers with large footwear companies (*Bata*, *Lennards*). Workers go through the usual process of apprenticeship, but formal training is not uncommon: during a survey conducted in 2001, some half of surveyed firms declared that they had sent their workers to technical training in institutions located in Aba, while about a quarter had done the same with institutions located elsewhere.
- ***Vertical and Horizontal Linkages***. There is significant subcontracting and "vertical disintegration" in the Aba footwear cluster. A number of producers subcontract the production of lasts, sole cutting, as well as uppers cutting, stitching and stamping to other firms. However, these transactions can be largely characterized as standard market transactions. Cooperation among firms at the same stage of production is fairly uncommon. In the past there were cases of initiatives for the joint training of workers and even in joint marketing, but these appear to have become less frequent as the struggle for survival has become stiffer.
- ***Technology***. The technology employed is generally simple and highly labor intensive. Medium sized enterprises have invested in imported machinery, which are typically bought second hand. These firms have gradually developed in-house capabilities in maintenance and re-tooling and are able to keep machines running at reasonable levels of capacity utilization.
- ***Market Access***. Initially, local output was largely sold in the domestic market, but the declining demand following the economic crisis of the 1990s induced footwear producers to refocus on the larger West African market. In recent years, around 30-40% of production was exported to neighboring countries. Sales are channeled through a network of traders and wholesalers who visit regularly the area (and sometimes have local representatives based in Aba). Aba producers have a long trading history and this has often resulted in the establishment of stable relationships with buyers.
- ***Innovation***. Innovation efforts mainly concentrate in two areas, namely: (i) the ability to adapt product features to rapidly changing market conditions, and (ii) the ability to broaden the product range and to shorten delivery periods ("flexible manufacturing"). Product innovation is largely the result of feedback and suggestions/requests from buyers, as most firms do not have an in-house design department. Technical innovation is mainly related to the acquisition of new machinery.
- ***Spin-offs***. Reflecting the Igbo's typical entrepreneurial attitude, in Aba it is quite common for apprentices to establish their own shop upon "graduation". On the one hand, this is made possible by the highly fragmented nature of the market, which continuously opens opportunities for new products or "brands". On the other hand, the launch of new ventures is typically supported by the network of family and friends, with little (if any) recourse to formal financial channels.

Role of Institutions/Public Policies and Donor Interventions

Apart from the (negative) impact of trade liberalization, public policy has not had any significant impact on footwear producers in Aba. Only recently a modest improvement in infrastructure has been recorded and firms in the cluster have not received any institutional support. The only official organization supporting the leather industry is located in Zaria, in northern Nigeria, and its activities are largely focused on larger enterprises. The local chamber of commerce does not seem to be particularly active, and the footwear group of the Manufacturers' Association of Nigeria (MAN) appears to include only a handful of Aba-based producers. Since 2004 some support is being provided by a UNIDO project (co-funded by the World Bank and APDF). The project aims precisely at fostering and reinforcing inter-firm linkages and involves the provision of enterprise development services. The project is summarized in Annex B.

CASE STUDY #8 – AUTOMOTIVE INDUSTRY IN EASTERN CAPE, SOUTH AFRICA

Basic Data

Location	The cities of Port Elizabeth, East London and Uitenhage, in the province of Eastern Cape
Sector and Products	Vehicles assembly and manufacture of car components
Firms and Employment	Three car makers and some 150 car parts producers, with a total employment of some 50,000
Market Orientation	Both domestic and foreign markets, with a growing emphasis on export sales
Volume of Activity	Some 20% of provincial GDP is related to the automotive industry

Origins and Developments

Since long the automotive industry represents the core of the industrial sector in Eastern Cape, and at present the province is the second largest automotive producing area in South Africa, after the Gauteng area. Of the seven international car makers active in South Africa, three (*Volkswagen*, *General Motors* and *DaimlerChrysler*) are located in the area. The Eastern Cape's automotive sector also includes some 150 component manufacturers, producing a wide range of items. Total employment is estimated at some 50,000, more or less evenly split between the car makers and the component producers.

During the 1990s, the progressive integration of South Africa in the world economy posed a significant challenge to the automotive industry, which historically had developed in a "closed economy". The restructuring process was facilitated and actively supported by the government through the launch of the Motor Industry Development Plan (MIDP). Indeed, the MIDP, while allowing for a gradual reduction of tariff protection in line with WTO guidelines, also offered a package of incentives aimed at retaining existing car makers and at supporting their export oriented operations, with the ambition of transforming South Africa in a major car producing platform. The Eastern Cape automotive industry was quick in seizing the opportunities offered by the MIDP and, starting with the late 1990s, the three car makers based in the province embarked in significant expansion plans. This, in turn, has led to a marked increase in export sales, and vehicles produced in the Eastern Cape are now widely sold in the international market.

Salient Features

- ***The Car Makers***. The car assembly sector includes three main operations, namely: (i) *Volkswagen South Africa* (VWSA), with plants in Uitenhage and Sidwell; (ii) *General Motors* (which in 2004 completed the acquisition of the former *Delta Motor Corporation*), with plants in Straundale and Neave; and (iii) *DaimlerChrysler of South Africa* (DCSA), with a plant in East London. In addition, *Ford* is operating a motor engine plant in Straundale, while its assembling plant is located in Pretoria. The three car makers based in the Eastern Cape account for about 30% of national output of passenger cars and for about 40% of total production of commercial vehicles.
- ***The Car Components Sector***. Eastern Cape's component companies produce a wide range of items (tires, catalytic converters, clutches, exhaust systems, batteries, metal tubes, brakes, etc.). The sector includes a mix of subsidiaries of multinational corporations (e.g. *SKF*, *Bridgestone*, *Continental*, *Hella*, etc.) and locally owned companies, sometimes producing under license from foreign companies. Over the last few years new operations have been established, largely as a consequence of the expansion plans undertaken by leading car makers (e.g. *Leoni*'s new plant, established to serve DCSA's new global production center for the C-Class model).
- ***The Supply Chain***. A study conducted in 2001 estimated that the three Eastern Cape car makers purchased some 58% of their inputs from abroad. Of the remaining, nearly 60% was procured from component producers located within the Eastern Cape and the rest from other parts of South Africa. The large share of inputs procured overseas is clearly a consequence of the dismantling of import barriers. Still, the share of components purchased from local suppliers is more than respectable. In turn, Eastern Cape's component makers sourced only about 25% of their inputs from the province, while 42% was bought from other provinces and 33% imported. Such a relatively low local content is due to the overall backward state of the provincial economy (Eastern Cape is South Africa's second poorest region), aside from the automotive industry.

- ***Operations***. Since the launch of the MIDP, Eastern Cape's car makers have embarked in major expansion plans. In 1998, DCSA launched a major investment (in the order of US$ 180 million) for the production of the C-Class model. WVSA has invested to upgrade its Uitenhage plant (lastly with a new paint shop worth some US$ 100 million). More recently, *General Motors* has planned a US$ 100 million investment for the local assembly of Hummer vehicles for the Asian markets. Being mainly targeted at the export market, these investments have also determined a tightening of quality standards, which had quickly to reach world levels. As a result, the last few years have also brought a dramatic change in the operations of component producers. On the one hand, they have been forced to shape up quite rapidly, adapting to "zero defects" standard required by car makers. On the other hand, the gains in efficiency achieved in the process have opened the door to significant export opportunities, and indeed car components exports have kept pace with (sometimes outstripping) export sales of cars.
- ***Labor Market Issues***. Significant improvements in efficiency have been achieved by the Eastern Cape automotive industry despite the significant weaknesses of the provincial labor market. A recent study has highlighted the deficiencies of the local education system (and especially of local polytechnics, the so called *technikon*) as well as the considerable expenses incurred by the automotive industry (the main car makers, but also some of the component producers) to make up for these weaknesses. Indeed, improvements in the provincial education and vocational training system rank high in the agenda of various initiatives aimed at developing the automotive cluster, but results so far achieved appear to be limited.
- ***Inter-firm Relations***. At the car makers level, a joint initiative was launched to reduce logistical costs and some significant results were indeed achieved, with estimated savings in the order of 15%. Relations between car makers and component suppliers are obviously intense but remain mainly hierarchical, based on the strict adherence to quality standards set by car makers. In the case of component makers, some sources report an increase in collaboration, especially regarding the joint purchase of inputs and the training of workers, but the fruits of such enhanced cooperation are not yet fully visible.

Role of Institutions/Public Policies and Donor Interventions

In parallel with the launch of the MIDP, an initiative aimed at strengthening the collaboration among the key players in the Eastern Cape automotive cluster was launched. The Eastern Cape Automotive Cluster (ECAIC) was formally established in April 1998, with the participation of national and provincial authorities and business organizations. Initially, the ECAIC initiative was intended to focus on four priority areas, namely: human resources development, logistics optimization, suppliers development, and attraction of strategic investments. Although heavily publicized, the initiative does not seem to have had the expected success and the operation was effectively discontinued at the end of 1999. Clustering development efforts were revived in march 2004, with the establishment of the Eastern Cape office of the Auto Industry Development Center (AIDC), a public-private partnership initiative that had been established in 2000 to serve the needs of the Gauteng automotive sector.

In operational terms, the main legacy of the early ECAIC initiative was the establishment of a company, the *Motor Industry Cluster Logistics Company* (MIC), intended to facilitate optimization in logistics and, as mentioned above, some progress was indeed recorded in this area. However, it has to be mentioned that joint actions in the area of logistics had already been devised autonomously by the German automakers active in South Africa (DCSA, WVSA and BMW), two of whom are based in the Eastern Cape. This arises some doubts about the causal link between the activity of MIC and the savings achieved. In 2004 MIC was merged into the newly established AIDC.

The limited success of clustering efforts in the Eastern Cape automotive industry appears largely due to the heavy "top-down" approach adopted. The ECAIC initiative was actively sponsored by national industrial and political leaders, with direct involvement of the Department for Trade and Industry – DTI, and little effort was deployed to enlist active support from locally based companies and institutions. Also, the initiative was (or at least appeared) primarily geared to serve the needs of the car makers (which, however, could already easily coordinate their actions over a cup tea at the German – South Africa club ..), somewhat neglecting the much more numerous component producers.

CASE STUDY #9 – AUTOMOTIVE INDUSTRY IN DURBAN, SOUTH AFRICA

Basic Data

Location	Durban, the largest city of the KwaZulu Natal province
Sector and Products	Vehicles assembly and manufacture of car components
Firms and Employment	One large car maker and some 50 component producers, with a total employment of some 50,000
Market Orientation	Both domestic and foreign markets, with a growing emphasis on export sales
Volume of Activity	Some 10% of provincial GDP is related to the automotive industry

Origins and Developments

Kwala Zulu-Natal (KZN) is South Africa's third production center, after Gauteng and Eastern Cape. Production activity is dominated by *Toyota*, which is running a plant in Prospecton, near Durban. *Toyota* established its operation back in 1961 and for 25 years has been South Africa's leading car producer. KZN's car component sector includes some 50 companies, based in Durban as well as in Pietermaritzburg and other cities in the province.

For various reasons, Toyota was somewhat slower in reacting to the incentives offered by the MIDP (see case study #8), and only in the late 1990s the company started undertaking significant investments to upgrade production capacity, namely with a view to enter the export market. Since then the KZN's automotive sector has undergone the same type of restructuring that characterized the other car producing areas in the country, with substantial gains in operating efficiency along all the stages of the value chain. To some extent, such a structural change was facilitated by initiatives aimed at strengthening the cluster's operational capabilities.

Salient Features

- ***Toyota***. Until recently *Toyota South Africa* was operating under a license agreement from the mother company. As the license agreement included major limitations to exports, for a long time the company focused exclusively on the heavily protected domestic market. The strategy was modified in the early 2000s, when the decision was made to use South Africa as a main production center for certain overseas markets. As a consequence, the Durban plant moved quickly towards a greater specialization and higher levels of production efficiency, in order to secure export contracts from the Toyota global supply system. At present Toyota South Africa is exporting the RunX model to Australasia and it is in the process of meeting requirements to export the new Corolla and Hilux models to various markets.
- ***The Car Components Sector***. KZN's car components sector includes 52 companies, producing a range of products (tires and rubber products, metal products, heat transfers, engine parts, electronic components, etc.). Forty companies are located in Durban, next to *Toyota*'s plant, 9 are based in Pietermaritzburg, and the remaining 3 in Ladysmith and Richards Bay. Employment in individual companies ranges from 50 to over 2,000. The ownership structure shows the usual combination of international and local ownership, with some examples of enterprises having undergone ownership changes in the framework of the Black Economic Empowerment (BEE) programs and others having been established by "previously disadvantaged individuals" (PDI).
- ***The Supply Chain***. All the KZN component producers rely on sourcing arrangements generated directly or indirectly by *Toyota*. Ten firms are first tier suppliers, 20 are second or third tier suppliers, 10 supply the aftermarket, and a dozen more marginal firms straddle the latter categories. The impact of *Toyota*'s strategic reorientation towards the export markets has been very significant for many local components suppliers. Since delivery specifications have become tighter, the relationships in the supply network have been subject to approval. The price for non-compliance has been the prospect of losing local *Toyota* business to other global suppliers. Firms that had *Toyota* as only one of their customers had to face a radical adjustment in order to meet requirements, specialize, increase volumes of output and improve product and process standards.

- ***Operations***. Over the last few years, *Toyota* has steadily increased its output, which in 2004 reached the record level of 113,000 cars (with an expected increase to 200,000 cars by the year 2010). As for the component producers, the efficiency of operations has increased markedly. For instance, between 1999 and 2002 the average total inventory holding period declined from 51 days to 40 days, while the customer return ratio (expressed in terms of parts per million units produced returned due to defects) declined from nearly 4,300 to little more than 1,000. Punctuality in deliveries was also on the rise while absenteeism declined. Some of these parameters remain below the levels recorded in other car manufacturing centers, in developed countries or in other emerging economies, but the gap is rapidly reducing and, in the case of KZN best performers, it has already disappeared.
- ***Inter-firm Relations***. Relations between Toyota and its suppliers are obviously of a highly hierarchical nature. Component manufacturers had to work hard to adjust to new rules of the game, and this also impacted on their profit margins. Still, a fairly cooperative atmosphere has been developing in the KZN automotive community, with a frequent exchange of information and the implementation of some joint projects. This appears to be largely the result of two initiatives aimed at fostering cluster development, the KZN Benchmarking Club and the Durban Automotive Cluster (DAC), involving industry representatives and sponsored *inter alia* by the KZN authorities.

Role of Institutions/Public Policies and Donor Interventions

The KZN Benchmarking Club (the "Club") was established in 1998. It was a sort of academic spin off, as the idea was promoted by a group of researchers from the local university and from IDS – Sussex, who had been investigating factors affecting the competitiveness of firms using benchmarking techniques. The Benchmarking Club was established with financial support from local authorities and saw the participation of 11 companies. The Club was mainly conceived as an information sharing mechanism, and its activities involved primarily: (i) the production of diagnostic reports of firm operational performance and customer & supplier perceptions, (ii) benchmarking reports against similar international competitors, and (iii) periodical workshops to examine competitiveness-related issues and to devise specific solutions.

The Benchmarking Club initiative was well received in business and administrative circles and this suggested to launch a second initiative, with a more ambitious agenda. The Durban Automotive Club (DAC) was officially launched in 2002, with strong support from the Durban Metropolitan Council. While the Club was mainly concerned with the provision of customized benchmarking information to individual enterprises, the DAC is primarily concerned with the identification of competitive challenges facing the cluster as a whole and with the organization of collective responses to these challenges. With a membership of over 40 (i.e. nearly the totality of automotive producers in KZN), the DAC is currently focusing on four main areas, namely: supplier development, human resources development, logistics coordination, as well as the more "traditional" benchmarking.

The cluster development initiatives in KZN can be legitimately regarded as a good success case. While the causal relationship between these initiatives and the improvement in performance experienced by the automotive industry in the province cannot be established beyond any doubt (but this applies to all initiatives of this kind, as inevitably other forces are also deploying their impact), a recent study clearly shows a high level of appreciation among member firms. Some of the reasons underlying such a success, lie in the concrete, very much business oriented nature of activities and in the clear focus on the local situation. Also, the clustering initiatives, while obviously not neglecting the role of *Toyota*, were mainly geared towards the component producers, i.e. those more in need of assistance to face the new challenges posed by the increasingly competitive environment. In contrast, the much less successful (at least so far) initiative launched in the Eastern Cape province (see case study #8), were the result of directly orchestrated government interventions and were largely oriented towards the large car makers.

CASE STUDY #10 – CLOTHING MANUFACTURE IN WESTERN CAPE, SOUTH AFRICA	
Basic Data	
Location	Cape Town and its surroundings
Sector and Products	Clothing, from basic products to high quality items with significant design & fashion content
Firms and Employment	Some 300 "formal" enterprises plus an unspecified number of micro enterprises. Employment in "formal" enterprises is around 38,000, while another 20,000 are working in the "informal" sector
Market Orientation	Primarily domestic market, with some export sales
Volume of Activity	About US$ 900 – 1,200 million

Origins and Developments

The origins of Western Cape clothing industry go back to the 1920s. Before that period, clothes were mainly imported. In the early 1930s local factories employed 3,500 workers, which soon became more than 10,000. A expansion occurred during WWII, when output increased dramatically (and employment more than tripled) to supply goods which were no longer available in the international markets. Afterwards, the cluster grew steadily until the end of the 1980s, becoming South Africa's main clothing production center. The situation changed significantly during the 1990s, when the opening up of the South African economy brought significant competition from cheap imports, namely of Asian origin. Recent data suggest that some 5,000 jobs have been lost since the late 1990s, bringing total employment in the "formal" sector to some 38,000.

The cluster is populated by about 300 "formal" enterprises, with some 40 companies employing more than 200 workers. They include full line manufacturers as well as a sizeable number of "cut-make-and-trim" (CMT) operators. Western Cape clothing manufacturers tend to supply the higher end of the market, and this is also reflected in a comparatively larger use of value added fabrics (e.g. wool). The large majority of enterprises is domestically-owned, with a few cases of foreign owned operations, such as *Levi Strauss* (jeans). Next to the "formal" sector, there is an unspecified number of "informal" operations, with an estimated labor force of some 20,000. Informal businesses tend to supply the lower end of the market, although some of them have also been winning clients away from large companies.

Salient Features

- ***Access to Supplies***. The South African clothing industry suffers from a chronic shortage of domestically produced fabrics, which are also of a limited variety. Apart from this structural weakness, the Western Cape clothing industry has a comparatively easy access to raw materials and other inputs. The province is home to several operators supplying specialized inputs and services (such as fabric printers, suppliers of new and second-hand machinery, and suppliers of trim), while items not produced locally can be easily procured through specialized traders and importers, also well established in the Cape area. In the mid 1990s Western Cape clothing manufacturers sourced only about 20% of their inputs from outside the region, but over the last decade this percentage has certainly increased, following the trade liberalization and progressive dismantling of import tariffs.
- ***Labor Market***. There is a large availability of workforce, including a significant number of skilled workers and technical staff. As a consequence of the recent crisis, employers and trade unions have reached an agreement that is limiting wage increases, expected to remain below the inflation rate. Still, labor costs remain largely uncompetitive compared with those of less developed countries. In Western Cape hourly labor costs are in the order of US$ 1.50, compared with US$ 0.35 in Madagascar, US$ 0.40 in Kenya, India and Bangladesh, and US$ 1.25 in Mauritius. The attempt to reduce labor costs together with the large number of redundancies experienced over the last few years, have contributed to the growth of a significant "informal" sector, where minimum wages regulations are obviously not respected.

- ***Operations***. In the "formal" sector the technological level is fairly advanced, with several companies using modern equipment, with computer assisted designing, marking, etc.. Smaller firms (let alone the informal ones) use older and simpler technology. The recent downturn seems to have negatively impacted on investment levels, which in the last few years have been in the order of 2- 2.5% of sales value. The increased competition has induced a greater level of specialization in terms of product lines, but also a "disintegration" of the production process, with several companies specializing in only one production stage (e.g. some companies are only involved in cutting). This, in turn, is at the basis of a growing network of subcontracting relations, which in certain cases represent the bridge between "formal" and "informal" producers.
- ***Market***. Sales are largely in the domestic market. Cape Town is the home of South Africa's largest retail chains and shops and this allows for an easy interaction between producers and buyers. Export sales, especially to the US, have increased over the last few years, partly as a result of AGOA. The UK is the second largest market, followed at considerable distance by the United Arab Emirates. Despite this recent increase, export sales account for only 10-15% of provincial output.
- ***Vertical Linkages***. As everywhere else in the clothing industry, the real market power stays with traders, fashion houses, and foreign buyers, and even the largest producers are in a dependent position. This, coupled with the growing pressure on costs determined by increased competition, has an obvious impact on the nature of vertical relations. While examples of longstanding collaborative agreements may still be found, on the whole market transactions governed by rigid rules tend to prevail.
- ***Horizontal Linkages and Information Sharing***. According to certain sources, in the past the Cape clothing industry was characterized by a high degree of horizontal cooperation among producers, with companies cooperating to handle large orders, presenting joint clothing ranges, using marketing agents jointly, and even lending and borrowing equipment. Also, the dissemination of information on new technologies was reportedly facilitated by a widespread open attitude, which allowed for frequent exchanges of factory visits. With the emergence of a much more competitive environment, attitudes appear to have evolved in the opposite direction.

Role of Institutions/Public Policies and Donor Interventions

As in many other cases in South Africa, the Western Cape clothing cluster has not been suffering from lack of dedicated institutions. The main bodies include two sector associations, the *Cape Clothing Association* (CCA) and the *Garment Manufacturers' Association* (GMA, grouping the larger CMT companies) and the *Clothing Trade Council of South Africa* (CloTrade), a body created by the profession to interact with the government on trade–related issues. However, the impact of these entities in addressing the industry's structural problems has been so far limited. Indeed, following standard South African practice or model, the two sector associations have been primarily concerned with labor relations, while CloTrade has been primarily acting as a lobbying entity.

In recent times the provincial government embarked in a process similar to the one adopted in the case of the Durban automotive cluster (see case study #9). A benchmarking exercise was first commissioned to a consulting company (the same that initiated the KZN Benchmarking Club and that was later involved in the DAC). Following the successful completion of this initial stage, the Cape Clothing Cluster, modeled after the DAC example, was to be established in August 2005. In line with the structural problems identified during the diagnostic phase, the Cape Clothing Cluster is expected to focus on four main areas, namely: human resources development, manufacturing excellence, supplier development, capital upgrading.

ANNEX B – UNIDO PROJECTS IN CLUSTER AND ENTERPRISE NETWORKS DEVELOPMENT

In this Annex we provide a series of profiles summarizing UNIDO's experience in promoting clusters and enterprise networks. In line with the nature of the Study, the focus is exclusively on ACP countries. The Annex covers the following four projects:

- Sénégal - *Projet d'appui aux petites entreprises du Sénégal*;
- Jamaica - Strengthening the Competitiveness of the Jamaican Manufacturing Sector with Special Emphasis on Small and Medium Enterprises;
- Zimbabwe - Development of the SMI Sector Using Clustering and Networking;
- Nigeria - Cluster Development in Eastern Nigeria.

The project profiles follow a standard format, with the provision of basic project data, an overall description of project activities/components, a presentation of results achieved, and a presentation of lessons learned.

PROJECT PROFILE #1 - SENEGAL	
Basic Data	
Official Title	*Projet d'appui aux petites entreprises du Sénégal* (PAPES)
Location	Dakar, Thiès and Saint Louis
Period	2001 – 2006 (in four tranches)
Donors	Austrian Government and UNIDO
Budget	US$ 706,250
Objectives	• Organization of business networks and implementation of joint business initiatives; • Capacity-building of professional associations and development of their services; • Promotion of the interests of SME within the framework of the current policy reforms
Local Counterpart	Ministry of Industry and Handicraft and SODIDA (*Société de gestion du domaine industriel de DAKAR*, a semi-public company, operating as the national platform for SME support projects).
Project Team	• 1 project manager, • 1 business advisor and support staff (located at SODIDA), • 3 network brokers located in Dakar, Thiès and Saint Louis, • 1 part-time international advisor.
Description	
The project targets small enterprises (about 3-30 employees) in 5 sectors: mechanical engineering, agro-industry, wood products, leather products and garments. The main aim of the project is ***strengthening cooperation among stakeholders and supports social capital building within small enterprises***. The project follows a bottom-up approach and operates at different levels. The expected results are as follows: • ***At the micro-economic level***: - 20 new business networks, incorporating more than 120 businesses; - implementation of the strategic projects by these networks, resulting in the launch of more than 25 cooperative initiatives between enterprises; - training of specialist network brokers to promote the dissemination of the model; • ***At the meso-economic level***: - Business Development Services (BDS) provision, co-financed by the project, to develop eight professional associations (including the training of association leaders) and the design of six new services offered to the members of these organizations; • ***At the policy level***: - Review of specific concerns of small enterprises and organization of events (conferences, seminars, thematic workshops), supported by expertise and an information campaign. The objective is to increase the capacity of small firms to dialogue with the state and to promote reforms of the business environment to make it more conducive to SME development.	
Results	
After the initial phase, 16 business networks encompassing the three geographic locations and the five designated sectors, were established and received training. Although it was highlighted that the demand for assistance remained strong and 15 further groups were aiming at entering into the same process. Seven of the networks were entirely self-managing; five were undertaking their pilot project activity (three in common purchasing, one undertaking joint promotional activities, one upgrading production); and four had undertaken feasibility studies of their strategic programs with the assistance of external consultants co-financed by the project. The methodological tools for assisting the business networks were systematized and	

continually improved on the basis of best practices learned. Three associations (in the garments, mechanical engineering, and fruits & vegetables sectors) received support from the project in developing their strategic plans, with support from external consultants. It is quite interesting that these associations had a national coverage, but their strategies were defined on a regional basis, quite consistently with the cluster approach. However, activities related to the creation of a dialogue between small enterprises were not yet implemented.

Lessons Learned

On the supply side, one of the main success factors was the team's good knowledge of the local context, which permitted to rapidly identify the potential candidate networks. Second, the project team benefited from the best-practice coming from other successful project (e.g. Nicaragua UNIDO project on business networks, training of brokers; strategic planning; individual and collective diagnostics; etc.). This transfer sustained a learning by doing process, which was particularly useful for the project officers. Third, the participatory approach adopted by the team group ensured the strong involvement of trained enterprises, which also enabled them to escape from a rent-seeking behavior and to become more autonomous and open, thus facilitating cooperation among them.

On the demand side, the willingness of small enterprises to organize themselves and cooperate was a further enabling factor: for example, there already existed in four out of the five designated sectors a regional or national producer association. However, none of these organizations had a well-elaborated strategic plan.

PROJECT PROFILE #2 - JAMAICA	
Basic Data	
Official Title	Strengthening the Competitiveness of the Jamaican Manufacturing Sector with Special Emphasis on Small and Medium Enterprises
Location	Various locations throughout the country
Period	1994 – 2000 (in two main phases)
Donor	UNIDO and UNDP
Budget	US$ 1.5 million
Objectives	• Enhance competitiveness of local manufacturing firms; • Strengthen national institutions and administrative capacity; • Strengthen regional institutions and technical cooperation; • Human resource development
Local Counterpart	Jamaica Promotions Corporation (JAMPRO)
Project Team	• a local team deployed by The Productivity Centre, located within JAMPRO; • an international chief advisor.

Description

The project was established to promote and develop small and medium firms in Jamaica and to foster technical and skill development initiatives in favor of SME. It was aimed at increasing the contribution of small and medium enterprises, including those in the rural areas, to the national industrial output by improving their productivity according to the principles of total quality management, ***continuous improvement and networking and by strengthening the SME institutional support system***. The project was arranged in two phases. The first phase aimed at strengthening the capabilities of the local Productivity Centre to act as a networking promotion agency, and of creating specialized centers, coordinated by JAMPRO (the public development agency), to provide "real services" to the SME. The second phase aimed at supporting the national efforts to ensure the promotion and development, nation-wide, of SME. It rendered a strong support to the implementation of the National Industrial Policy in its objectives of building and sustaining the competitiveness of national SME. The project was completed in 2000.

Results

The project produced the following major outputs:

- Networking Unit fully equipped and operational: a modernized Productivity Centre able to coordinate program activities, act as a focal point for SME support services in the country and hub information provider on SME related issues;
- Resource centers modernized with upgraded level of services in the following sectors: woodworking/furniture, garment/fashion, agro/food processing, capital goods, crafts, design. A successful example is the Apparel Technical Center (ATC), created for supporting the development of the clothing industry. ATC offers specialized training at advanced level, particularly directed at supervisors, managers and entrepreneurs. Its two main areas of specialization are computerized pattern making and grading and flexible manufacturing systems, based on modular production, 'just-in-time', total quality management and total preventive maintenance. The center is equipped with a CAD station and a production line organized according to the principles of flexible manufacturing, both utilized for training purposes and also for supplying specialized services to firms;
- Three Mobile Service Units (MSU) equipped and providing SME support services;
- Promotional facilities established for collection of products from SME;

- Linkages strengthened with technical schools, vocational institutions and universities and joint projects for SME designed and implemented in cooperation with resource centers and the Productivity centre;
- A set of training packages developed for networks creation, total quality management, design and product development, environment and waste minimization;
- 25 professionals trained as focal points in the above fields as well as staff of 500 SME.

Lessons Learned

Main lessons learned through this project have been:

- The sustainability of the project was enabled by a strong local ownership of project activities accompanied by an effective support at the highest level of public sector institutions;
- Key factor for the success of the project was the innovation of technical services offered to SME (for instance in design and marketing) as well as their customization to the needs of the entrepreneurs;
- SME support is more successful when directed to groups of enterprises rather than individual ones (more effective as well as cost-efficient);
- When offering technical services to SME it is important to design cost-recovery measures from the very beginning of the institutional capacity building initiative.

PROJECT PROFILE #3 – ZIMBABWE	
Project basic facts	
Official Title	Development of the SMI Sector Using Clustering and Networking
Location	Harare, Bulawayo and Mutare
Period	2001 – 2004 (in two phases)
Donor	Austrian Government and UNIDO
Budget	US$ 594,000 (of which Phase I: US$ 91,248 and Phase I: US$ 502,752)
Objectives	The main objectives are: • enhance the operating environment of SME and promoting changes in policies and regulations; • increase competitiveness of SME by creating and strengthening viable SME networks; • strengthen the capacity of SME and networks through accessible, appropriate and complementary training, advisory and information services.
Local Counterparts	Ministry of Industry and International Trade of Zimbabwe; A National Project Coordinator and a technical team organized by the Organization for Socio-Economic Research and Consultancy Services (OSERCS); The Institute of Development Studies (IDS) of the University of Zimbabwe.
Project Team	The technical team includes: • 1 Team leader; • 1 Senior Technical Adviser; • 6 Network Brokers (one with a business background, the other with an engineering background) operating in the project locations; • 1 part-time international advisor.
Description	
SME networks have been supported to exploit opportunities and address common problems for mutual benefit. The project operated in the urban centers of Harare, Bulawayo and Mutare where there was a broad base of SME. It focused on three sub-sectors: metal fabrication, woodworking and garments. The project provided access to training and advisory services to strengthen the internal operations of the networks. These activities were carried out by the Business Development Services (BDS) project partners. The preparatory phase showed that, despite support institutions with varying capacities to provide services for SME were already in place in the area, firms' needs were not sufficiently and effectively addressed. The project implementation stimulated demand for BDS services among the SME through the networks and enhanced the capacity of BDS providers to address local needs in an effective and sustainable manner. Overall, this contributed to the development of a BDS market. In order to promote a more conducive operating environment for SME, a study was put in place to identify direct regulatory constraints as well as laws that could be changed or implemented in a more favorable way for SME. The capacity of local authorities to make the required changes and to monitor their implementation was strengthened. Training activities for the network of brokers and the BDS partners were structured as follows: • Training of Trainers – Presentation and Training Skills – 1 week - Topics: training defined, training cycle, training needs analysis, setting training objectives; designing a training course, adult learning principles, adult training techniques and practice teaching. • Training on organizing and strengthening networks – 1 week - Topics: definition of networks and clusters; phases of network development; group strengthening – vision/mission formulation, effective communication, conflict-resolution, problem solving techniques, effective group leadership, and how to handle group meetings; and group project development;	

- Quality management and industrial extension – 3 weeks - Topics: industrial extension processes, total quality management, quality management process, problem solving cycle, error proofing, flow chart, process flow chart, routing diagram, machine utilization, technology audit, plant design, production planning and materials, work-force organization, lean production, maintenance, competitive marketing, Pareto analysis, estimating working capital requirements, integrated cashbook, product costing and financial analysis.

The training program was complemented with in-plant study for the participants to practice the tools learned during the course. BDS partners selected to attend the above training programs included non-government organizations, private consultants and technical training institutions.

Results

The main results of the first phase can be summarized as follows:

- 16 networks were formed and all adopted articles of association. A further 12 networks were in the process of being organized. All the 16 existing networks received training in team-building and awareness of strategic issues relating to their businesses. The brokers were helping the networks to identify common projects. One network also received funding from a donor agency to purchase shared equipment;
- The project was working with 18 BDS providers which received capacity-building in providing training in the creation and strengthening of networks, quality management and the provision of industrial extension services;
- Four BDS providers were using the training materials on group-strengthening for their own client groups. Two of these were also using the training materials in team-building training programs for the workers and staff of medium-scale enterprises;
- Six BDS providers were considering offering quality management training to the networks. Following on from the training programs conducted by the project, the BDS providers were also started to develop tailor-made business and technical training programs for local SME (a change from their normal practice of offering pre-packaged training programs).
- The networks and entrepreneurs have started paying for the services of BDS providers. For example: the Murahwa Green Market Network of metal-fabricating entrepreneurs paid a BDS provider for the preparation of a project proposal to solicit funds from the Ministry of Youth for a raw materials procurement project. In Bulawayo, members of two associations paid for training courses provided by two BDS providers.

Lessons Learned

The main lessons which have been drawn from this project are the following:

- For a project of short duration, it is better to work with already existing networks or associations of entrepreneurs rather than starting with a new group. In fact, organizational inputs will take less time and the pace of development will be faster.
- As to enhance the project staff effectiveness, it seems to be better to organize/strengthen networks that are physically contiguous to each other. Thus, an area where there is a concentration of entrepreneurs should be targeted first.
- The project team learned that entrepreneurs' awareness is rather important, in fact entrepreneurs are willing to pay for a service that they believe they need.
- Organizational issues are crucial, in particular a clear-cut allocation of tasks and responsibilities among actors. For example if the project is seeking to develop BDS markets, there should be a clear demarcation between network brokers activities and the BDS.

PROJECT PROFILE #4 - NIGERIA	
Basic Data	
Official Title	Cluster Development in Eastern Nigeria
Location	Aba and Nnewi, in Eastern Nigeria
Period	• The first phase began in 2002; this included the preparation, design, some sensitization and initial capacity building for a group of local enterprises and institutions in the identified priority areas; • The second phase started in April 2004 with an expected duration of 3 years.
Donors	IFC/World Bank; UNIDO; APDF (African Project Development Facility) and GTZ
Budget	Total project cost of the first phase is US$ 350,000 (IFC/World Bank: US$ 100,000; UNIDO: US$ 250,000). APDF and GTZ provide services. The total project cost of the second phase is estimated to be US$ 3.5 million.
Objectives	The project has been designed to help SME clusters to improve their competitive position. To this aim it focused on the following aspects: • ***Business Environment (BE)*** - The reduction of administrative and regulatory barriers to business start-up and operation; - Strengthening the capacity of local institutions to train skilled workers; - Improving access/availability of business support services and common service facilities; • ***Business Linkages and Enterprise Support Services (BLESS)*** - Fostering business linkages among enterprises including supply linkages between small and large firms; - Promoting the quality of local manufactured products to access new market opportunities; • ***Micro and Small Business Finance (MSBF)*** - Improving the offer of financial services to local SME.
Local Counterparts	Some local business associations (NNICIMA, NASMSLAPI, AGMON)
Project Team	Not available
Description	
The aim of the project is to promote the development of three clusters of SME, namely: leatherworking and garments clusters in Aba, and a light engineering cluster in Nnewi. The project is aimed at: • promoting greater cooperation between enterprises within the three clusters; • contributing to the development of linkages between large businesses and SME suppliers; • facilitating an enhancement in the level of both skills and technology used by SME. This will be done in several ways: through technical and business management training for client SME; encouraging joint SME initiatives and the development of buyer-supplier relationships between large and small-scale enterprises; helping SME to identify and exploit niche markets; helping SME meet the standards required for certification by the Standards Organization of Nigeria; and, in the Nnewi light engineering cluster, through an integrated program of technology development. It is anticipated that the Aba cluster will also benefit from this technology development work in Nnewi through the transfer of capacity to small-scale engineers in Aba, thus enabling them to build and repair much of the equipment used within the Aba cluster.	

The project will also build the capacity of partner producer associations and business development service-providers by way of training, advice and some equipment purchase. In addition, a local economic development forum will be established in each of the clusters, providing a channel for all the principal stakeholders to work together in the interest of the clusters. The aim here is to build the institutional capacity of the various stakeholders within the clusters to enable them to respond to opportunities as well as crises facing them well beyond the life of the project.

At the heart of the project design is the ***cluster-broker***, employed to act as a catalyst to promote cooperation and development in each of the clusters. It is anticipated that as the value of the cluster-brokers becomes recognized by all stakeholders within the clusters, the producer associations will progressively take over this brokering role from the project: as their capacity to promote the interests of their members and to lobby for more pro-poor, pro-SME economic development policies is enhanced, so they will attract more members and be better able to take over the financing of the cluster-brokering role.

Results

The project is still ongoing. Preliminary results can be summarized as follows:

Business Environment component

- ***Local demand for services.*** More information about local needs and potential beneficiaries was obtained by surveying 181 firms in the project areas.
- ***Implementation Committee and Action Plan.*** Based on the survey, priority initiatives were formulated in an Action Plan by an Implementation Committee, made up of private and public representatives in both states. The Action Plan included specific initiatives targeted at (i) improving the operating environment for SME and the firms and (ii) capacity building for main stakeholders.
- ***Public-Private Sector Dialogue.*** A consultative mechanism was created to ensure that public and private sector representatives became partners in the reform process. This process ensured accountability and sustainability of the reforms implemented.

Business Linkages and Enterprise Support Services component

- ***Technical Skills Development.*** Initial evaluations were geared to assess and prioritize needs and identify institutional partners to address the problem of shortage of skilled workers. Capacity building activities for the institutional partners were designed with the aim of strengthening local vocational schools and the introduction of a master craft program (a fee-based program in which trained entrepreneurs offer advisory services and technical training to other entrepreneurs).
- ***Appropriate Technology/Common Facility Center.*** A Common Facility Center (CFC) for the leather products sector was designed. The CFC was aimed at providing access to appropriate technology, machines and tools for hire and enable the firms to improve the quality of their products and target new markets demanding higher standards.
- ***Business Networking/Cluster Coordination.*** Training seminars were conducted on business networking, supplier development programs, and quality management techniques. Study tours were made to Zimbabwe and India to learn from ongoing cluster development projects. Networking opportunities were identified in order to exploit market opportunities beyond the reach of individual enterprises. Cluster brokers were hired in the third quarter of 2003 to coordinate actions at the local level, facilitate continued dialogue among cluster stakeholders and promote trust building leading to a shared cluster development agenda.

Micro and Small Business Finance component

- ***Microfinance Feasibility Study.*** In order to improve financial services, a microfinance company was established in Lagos and a new branch in Eastern Nigeria was inaugurated.

Lessons Learned

Too early to tell

ANNEX C – UNIDO ACTIVITIES IN EXPORT CONSORTIA PROMOTION[15]

C.1 EXPORT CONSORTIA: OVERVIEW

The new challenges arising for small firms from globalization call for innovative responses. Inter-firm cooperation by SME indeed allows individual firms to improve their competitiveness and thus seize opportunities arising in international markets as a result of globalization. Export consortia are a vivid example of such inter-firm cooperation. Due to their small size, isolated SME often have difficulties to establish an export presence in foreign markets. They lack the necessary knowledge and financial means, may not meet foreign regulatory requirements and the quantities and quality produced are often unattractive to foreign buyers. By combining their knowledge, financial resources and contacts within an export consortium, SME can significantly improve their export potential and reduce costs and risks involved in penetrating foreign markets.

An export consortium is a voluntary alliance of firms with the objective of promoting the goods and services of its members abroad and facilitating the export of these products through joint actions. Members of a consortium realize that cooperation must prevail over competition in order to access key markets and the latest technology. An export consortium can be seen as a formal medium to long-term strategic cooperation between firms that acts as a service provider specialized in facilitating access to foreign markets. Most consortia are non-profit entities. Typically, services are thus provided exclusively to member firms. To be noticed that members of export consortia retain their financial, legal and management autonomy. Export consortia help small firms to address several issues, namely:

- ***Risk reduction*:** risk decreases because of greater access to information on foreign markets and increase in diversification. Firms can explore more markets and reduce the seasonal fluctuation of markets itself;
- ***Improved profitability*:** profit margins increase because of savings on and stability of export. Savings result from cost cutting, in fact firms share several administrative and promotional costs as well as transportation costs. Stability stems from the opportunity to be present in more and different foreign markets;
- ***Efficiency gains*:** cooperation allows firms to overcome challenges arising from their small size and to exploit economies of scale and scope;
- ***Knowledge Accumulation*:** firms in consortia learn how to operate in foreign markets and to participate in alliances. The consortia also works as forum for information and knowledge dissemination.

To summarize export consortia can lead to considerable efficiency gains. While retaining their autonomy, members of an export consortium can improve export results and minimize costs. This can be achieved at a higher speed and at a lower risk than if the firms had attempted to export on their own.

Export consortia differ with respect to the services they provide. There are those that offer only basic secretariat functions, assist with translations and/or provide market research. There are, also those that help members to develop a complete export strategy and provide a wider range of services, including collective purchases of inputs, legal assistance, creation of a consortium brand and other forms of marketing. The two main types of consortia that can be distinguished are

[15] This annex is largely based on UNIDO, 2003, *Development of clusters and networks of SMEs: The UNIDO programme, a guide to export consortia*, Vienna: UNIDO, plus information on specific projects.

promotional and ***sales*** consortia. Within this classification, several typologies of export consortia can be identified:

- Single-sector and multi-sector consortia;
- Consortia grouping competitors and those offering complementary goods and services;
- Regional consortia and those comprising members from several regions;
- Consortia targeting a specific region and those active on a global scale.

Promotional consortia basically serve to promote the products of their members and to assist these in accessing foreign markets. Sales are directly performed by member companies. Conversely, sales consortia perform business promotion activities and, more importantly, organize the sale of member firms' products. These latter often perform quality controls over members products. While the number of member firms is typically limited in a sales consortium, promotional consortia usually have a significant number of members.

C.2 SERVICES PROVIDED BY EXPORT CONSORTIA

Services offered depend upon the type of consortium established (i.e. promotional and sales). In addition, the set of services varies according to the stage of development and the cohesion of the consortium. Some consortia provide basic secretarial services and sale promotion, while the more established eventually organize collective purchasing or joint product development. We outline below a rather comprehensive set of services which can be offered by export consortia.

Basic services:

- Administrative services (facsimile, email, etc.);
- Translations, interpretation and export consulting, legal assistance;
- Creation of a common information system for the diffusion of relevant data (on business partners, market developments, etc.) among the members;
- Assistance in handling transport and customs clearance procedures;
- Establishing links to local or national institutions.

***Promotional services*:**

- Joint Advertising (common catalogues, television spots, common website, etc.);
- Promotion, organization and coordination of member firms' collective participation in exhibitions and industrial fairs both in the domestic market and abroad;
- Participation of delegates of member firms in economic missions and study tours to foreign countries;
- Collective hosting of potential clients;
- Creation of a consortium trademark or brand and its support through promotional activities;
- Creation of collective communication, promotion, and marketing plans;
- Public relations and lobbying activities.

***More advanced services*:**

- Information on technical developments in the members' sectors, e.g. by reviewing industry-related press or participation in technical fairs;
- Market research (relating both to the *geographic area* and to the *segment* of the market to target);
- Organization of collective training activities and workshops;
- Introduction of quality standards;
- Identification of distributors and clients;
- Establishment of a common distribution network;
- Research on: improved processing techniques, new and improved products;
- Selection of suppliers of raw materials and equipment and the definition of common purchasing methods;
- Joint shipping;

- Assistance in obtaining certification standards (e.g. ISO 9000);
- Response to a request by joint or complementary offers;
- Collective participation in tenders;
- Recovery of credit extended towards members' customers;
- Negotiation of preferential agreements with banks, travel agencies, etc..

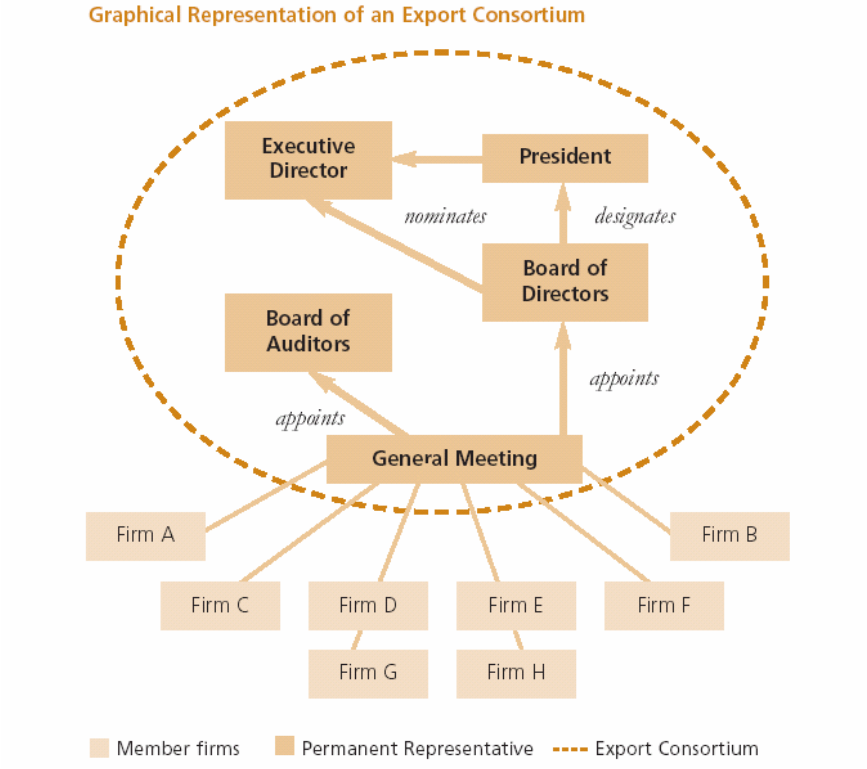
C.3 PROCEDURES FOR THE ESTABLISHMENT OF EXPORT CONSORTIA

Before initiating the process of establishing a consortium, the actors involved should be aware of three underlying conditions, which must be met to ensure success: (i) clear objectives; (ii) consensus building; and (iii) time factor. The initiative to create an export consortium may either come from a public institution or from the private sector. Although export consortia main significantly differ, some common stages of development can be identified. Main steps involved in creating an export consortium may be summarized as follows :

1. ***Identifying a suitable promoter:*** the promoter of a consortium has to initiate, guide and organize the establishment of the consortium. He facilitates consensus building, so his job is not to dictate what is to be done, but rather to assist in the launching of the networking project. Promoter's knowledge and contacts are crucial to guide the members and to assist them in all the steps involved in the consortium creation process;
2. ***Identifying potential members:*** in cooperation with competent local institutions, promoters of export consortia identify suitable industrial sectors. Also existing networks or untapped relationships among firms should be identified. Participating firms have to meet defined criteria with respect to their size, reputation, financial stability, and typology of products. These firms have to be able to offer products of adequate quality, in sufficient volumes and at a price that is competitive at the international level. Additional selection criteria are: similar turnover, export activity, adherence to ISO standards and registration in the country in question (subsidiaries of foreign firms should not be targeted);
3. ***Conducting a study of interest and contacting interested firms:*** individual interviews and meetings are organized with firms in the priority sector(s). Interviews and survey also give firms the opportunity to express their interest in the concept of export consortia. Additionally, it permits the promoter to determine firms' common weaknesses and expectations, which can be used to define joint starting objectives;
4. ***Designating representatives:*** each firm should designate a representative which is typically the owner or a member of the firms' directors. He must have the authority to negotiate the design and operation of the future consortium;
5. ***Organizing meetings between potential members:*** a first round of preliminary meetings is organized in the form of information sessions. These first-round meetings are intended for potential member firms to reflect on the objectives of the consortium, financial and legal matters and to give feedback to the promoter;
6. ***Undertaking a feasibility study and drafting a business plan:*** the business plan should be based on the member firms' needs and priorities as determined by means of a questionnaire and a feasibility study. This latter study helps to ensure that the objectives are not overambitious;
7. ***Formal incorporation of the consortium:*** at this stage firms must formally commit themselves to the consortium, which means elaborate a consortium's Statute, contribute financially and commit to export primarily to a certain group of countries as specified in the business plan. The Statute is typically accompanied by the Shareholders' Agreement, which spells out in greater detail how the collective functions are to be performed. At this stage, the Executive Director of the consortium should be recruited. Furthermore, office space should be located so that the consortium can begin its operations.
8. ***Follow-up:*** after having formally established the consortium, internal and external relationships must be promoted, i.e. the relationships between member firms and those between the

consortium and its export partners. Additionally, contacts between various consortia should be encouraged to facilitate the flow of information and experience. In order to ensure regular exports, contacts with clients must be created and existing relationships strengthened.

Graphical Representation of an Export Consortium



C.4 CASE STUDY #1 – TEC CONSULTING

Established in 2001 within the framework of the UNIDO-Tunisian Ministry of Industry technical cooperation project, the Tunisian Engineering Consortium Consulting (TEC Consulting) is the second consortium created in Tunisia by UNIDO.

TEC Consulting groups twelve research and consultancy firms specialized in engineering. The initiative for the creation of this consortium arose from an awareness campaign organized by a UNIDO project in Tunisia. Following one of the presentations, several engineering companies contacted the *Bureau de Mise à Niveau* (BMN) within the Ministry of Industry, to present their ideas on the creation of a consortium grouping complementary engineering services. Initially, 30 engineering companies declared their interest in the project of joining a consortium. The BMN provided institutional support and channeled firms' efforts. It hosted the first meetings of the companies' directors with UNIDO's promoter. During these meetings, various practical issues were discussed such as the possible objectives of a future consortium, selection criteria for members and possible legal forms. For example, it had become clear that difficulties relating to differences in the resources and investment capabilities of member firms could be avoided by requiring members to have similar financial means and a similar level of technological competence. Since large international tenders often require a great number of experts in one field, it was decided that companies offering the same types of services could be accepted as members. To ensure knowledge and respect of the mutual competencies, it was agreed that future members must be associates of the Tunisian Association of Consultancy Firms. Furthermore, it was agreed that applicants must be consultancy firms who have been in operation for a significant number of years, wish to upgrade their work and wish to work according to ISO 9000 standards.

The twelve engineering companies that met the membership criteria agreed that their main objective would be to combine their competencies in areas such as consulting, public and private building design, urban planning, hydraulics, information systems, topography, environmental studies, electrification and civil engineering, so as to jointly provide a comprehensive and competitive offer when bidding for international tenders. To reach this goal, they decided on the following activities for the consortium:

- Producing a joint catalogue as well as a promotional brochure, creating a website;
- Conducting market research;
- Developing training courses, obtaining the necessary certification for members;
- Establishing links with large international donors, organizing several business trips abroad;
- Signing partnership agreements with research consultancies abroad.

The twelve firms decided to establish a public limited company, whose capital is divided into twelve equal parts and determined in accordance with the needs established in the business plan. The consortium is headed by a President who is elected among the members of the consortium. An Executive Director and an assistant to the President may be recruited externally.

On March 19th 2001, TEC Consulting was officially established as a limited company with a total paid-in capital of 60,000 Tunisian Dinar, i.e. 5000 Dinar (approximately US$ 3,500) for each of the twelve members. The distribution of pamphlets through Tunisian embassies abroad quickly resulted in contacts with foreign consultancy firms and partnerships with nine other foreign companies were established. Following several missions to neighboring countries, TEC Consulting has been contracted for several projects, among them the construction of the Algerian Ministry of Energy and of a University in Algeria. The consortium is open to new members and three companies have voiced their interest to join. A website for the consortium has been created at www.tecconsulting-tunisie.com.

C.5 CASE STUDY #2 – CODEXART

Since 2001, UNIDO, in cooperation with the Ministry for Artisans and the Social Economy, assisted the Essaouira artisan cluster. Following an UNIDO's awareness campaign, fifty artisans with an equal level of training, production techniques and infrastructure decided to join forces and to create an export consortium. With the assistance of UNIDO and the Association of Artisans, the consortium CO.D.EX.ART plc. became functional in spring 2003. Its objective was to make the crafts of its members more attractive for foreign buyers through promotional campaigns, quality improvements and the development of new product lines. Prior to the consortium's creation, intermediaries had a monopolistic position: only 7% of products were sold directly to end users and isolated artisans lacked bargaining power. CO.D.EX.ART addressed this problem by developing a comprehensive promotional campaign for its members. A catalogue of the different designs was produced. A website and a CD ROM present the entire range of crafts produced by members (www.codexart.com).

To address the need for skills upgrading, CO.D.EX.ART organized training courses for its members. These were not only aimed at assisting artisans to specialize, but also at transmitting new techniques and encouraging innovation. Every new design or model will be registered with the Moroccan Office for Industrial Property. Computer training and internet courses were also organized for associates and intended to assist the access to information relevant for the sector. CO.D.EX.ART was also attempting to improve the quality of products. Production methods leading to quality improvements were jointly being developed and a quality certification for artisans' products was introduced. A new product range was also developed.

The final objective of the consortium, and notably one of the most important was the strengthening of ties among artisans as well as the development of relationships with public and private institutions. Through the consortium newsletter, a feeling of belonging to a community was reinforced and information exchange enhanced. CO.D.EX.ART was also strengthening its relations to local and national institutions and thus ensuring the representation of its members in events relevant to the sector. In addition, it was creating links to European distribution channels for crafts.

ANNEX D – CLUSTER DEVELOPMENT INITIATIVES IN SOUTH AFRICA

D.1 THE OVERALL CLUSTER DEVELOPMENT POLICY ENVIRONMENT

In its early post democratization phase (1994-1999) the Department of Trade and Industry (DTI) in South Africa developed a considerable level of interest in promoting national level clusters to improve the competitiveness of key sectors. Hence the DTI saw a role for itself in facilitating intra and inter firm processes to ensure that strategic information was exchanged between the stakeholders as well as to enable greater collaboration at a plant level, within supply chains and amongst firms in similar sectors.

In line with similar initiatives in other countries, the DTI embarked on a process to encourage the formation of ***nationally driven "cluster" processes*** by setting up financial and incentive support matching grant funding schemes, such as the Sector Partnership Fund, the Workplace Challenge and Competitiveness Fund schemes, which aimed to boost intra and inter firm co-operation many South African firms lacked.

The DTI began to roll out a series of supply-side support programs that were seen as less distorting than demand-side interventions that had prevailed prior to the onset of democracy. The DTI worked to popularize the concept of clusters through hosting a series of workshops with key sector groups in the main manufacturing regions. However, whilst the studies and their related dissemination processes contributed to the development of a shared strategic perspective of various industries in the country, they generally did not translate into any sustained collective action by the stakeholders concerned. One critical reason was the lack of a clear funding program by the government.

Despite the failure of many of the national processes to sustain themselves beyond initial research phases and of the regional processes to develop on more self-sufficient paths, the exercise conducted by the DTI is seen to have had some benefits. It resulted in a substantial escalation of working relationships between firms involved and DTI officials to the benefit of both parties. The launching of the Sector Partnership Fund in the second half of the 1990s created an opportunity for sector stakeholders to build a collective agenda around matters of competitiveness. However, the bulk of applications through this scheme resulted in one-off projects rather than sustained networking and, when networking was sustained, it did not extend beyond single-issue processes (e.g. PE Auto Cluster with its focus on logistics). The creation by the DTI of a dedicated team to promote cluster initiatives yielded little more than further analytical studies and workshops. The result of this less-than spectacular engagement with cluster processes was that the DTI took less of an interest in a direct manner in what were conventionally framed as cluster processes or inter-firm networks.

The DTI seemed to have drawn the wrong conclusion from the failure of its short lived policy emphasis on clustering, namely that the fault lays with clustering *per se* rather than reflecting on the role of its own mistakes in the way it formulated the cluster program. In marked contrast to the Taiwanese experience, the DTI focused on promotional tours, provided no implementation plans and no funding. However, this loss of interest in such processes by the DTI did not prevent other role players continuing to seek opportunities in inter-firm co-operation.

At the turn of the millennium, the DTI underwent a sustained period of restructuring and shifted away from cluster processes which were often viewed as excessively resource intensive and seen

to yield less tangible results than more direct interventions on an individual basis with leading sector players. Whilst the latest policy offerings re-emphasize the thrust towards clusters, it remains a concept founded on strategic national processes with key role-players in day-to-day implementation terms.

A further complication has been the highly centralized approach of the DTI which has resulted in very little meaningful interaction with other spheres of government and even less "grassroots" interaction with firms in their specific locations. The resultant impact has been little inter-governmental co-ordination and a policy orientation with a strong top-down delivery bias. In this regard its programs and activities can still be characterized as highly centralized, macro-level and generally not informed by the dynamics of space and place and offering little in terms of support to networking and clustering activities on a discreet regional basis.

In the subsequent sections we present three different examples of the implementation of cluster development initiatives in South Africa, covering, respectively, the automotive, the wood processing, and the tourism sectors

D.2 CLUSTER DEVELOPMENT IN THE KWAZULU-NATAL AUTOMOTIVE SECTOR

D.2.1 The KwaZulu Natal Benchmarking Club

A major drop in tariff protection at the beginning of 1990s and the rapid integration into the world economy posed major challenges for the automotive component sector in South Africa. They were faced with the need to become competitive at world class levels, otherwise the major assemblers locating in SA would decide to source their components internationally. Using internal resources and government support, a learning network was established in January 1998 and named the KwaZulu Natal Benchmarking Club (KZNBC). The initial KZNBC membership comprised 11 component makers and one large assembler and was supported and facilitated by a company set up by a group of researchers. The Club was designed as a learning network to facilitate rapid development of world class manufacturing capability and central to this was the use of a benchmarking model of key competitiveness drivers.

The organization of the Club is simple, based on two industry representatives and the facilitators/service providers acting as an executive committee on behalf of the rest. The main services available to members are:

- Confidential diagnostic reports which measured operational performance of each firm against the drivers in the benchmarking model;
- Monthly newsletter outlining aggregate benchmark data for the whole network;
- Quarterly workshops discussing generic findings, common problems and emerging solutions;
- Encouragement of experience and information sharing, for example through interplant visits, etc.

Although the intention was to make this an effective experience-sharing learning network it proved difficult due to the long history within the sector of lack of trust and unwillingness to share information, a legacy of the apartheid era. This was gradually overcome through a process of facilitated activities which gave a sense of a larger purpose to the activities of the network and led to the firm members taking ownership of the network. In general the KZNBC was perceived as successful, both by its members and by other firms in the sector. As a consequence, it began to be established in other parts of the country.

The risk related to projects like 'learning networks' is that they are intended only as organizing general meetings and workshops, which would happen anyway as a result of day-to-day sectoral operations. In order to quantify the concept and put the basis for assessing its effectiveness, key indicators could be:

- evidence of increasing ***knowledge sharing***;
- evidence of significant ***knowledge transfer***, for example, through spontaneous firm visits by members;
- evidence of major improvement in their ***operational performance*** as reflected in a variety of competitiveness indicators;
- and finally, the spread of the Clubs as ***new members*** were attracted.

Considerable qualitative data exists to support the contention that knowledge sharing and transfer took place, and there is clear evidence of growth in the popularity of the Clubs and the persistence of membership (suggesting that firms perceived the activities as beneficial). But the significant indicator is that of actual improvements in operational performance which member firms attributed to their participation in the network. The limits to such horizontal co-operation derive from the relative lack of impact on inter-firm issues, suggesting that some form of vertical co-operation is also needed to promote sector development. This touches on the emerging theme of 'supply chain learning' and the options for transferring the learning network model to such linkages.

D.2.2 The Durban Auto Cluster

By the early the benefits of the Benchmarking Clubs had been demonstrated effect in terms of performance improvement and perceptions of learning. Attention in the KZN region shifted to vertical and macro-economic issues which lay outside the direct control of individual firms. Once again a specific vehicle provided the focus for the development of a learning and lobbying network, the Durban Auto Cluster (DAC).

The initial stimulus for setting up DAC came from the head of the economics department of the Durban Metropolitan Council. Toyota SA, the major regional assembler, had secured a significant export order and the opportunity presented itself to work with them and key suppliers to enable regional economic growth. The existing infrastructure and, more importantly, high trust social relations, within the KZNBC were used to help initiate the DAC. Once again the external facilitators of the KZNBC played a key role in set-up by bringing interested parties together and establishing ground rules for emerging learning and other co-operative activities. In outline, the chronology of establishing the DAC took the following form over the six month trial period running from June to December 2001:

- all relevant firms in the local value chain (40 in total) were identified, visited, informed of the initiative and invited to participate, without financial obligation;
- a number of workshops involving all the major actors in the local value chain were held;
- international research on cluster success was undertaken to provide the required knowledge and information to participants;
- local, national and provincial government was made visibly present at these workshops so as to provide political legitimacy;
- a local needs survey was undertaken on the key issues affecting the local industry;
- participants voted to identify four key focus issues – these were logistics, human resource development, supply chain development, and operational competitiveness;
- technical task teams comprising firm level expert representatives were set up to manage these focus areas identifying the issues to concentrate on, as well as writing a clear one year business plan with program goals, activities, and designated budgets;
- a workshop in November 2001 discussed key issues - business plans, a (firm-based) governance

structure, an overall budget, availability of government support, membership fees, etc.

Firms then voted on whether the cluster should be formally launched, and whether they would commit to sign up as fee paying members. As a result of this six month pilot/set-up process the Durban Auto Cluster as a public-private initiative was formally launched in January 2002, run by an executive committee comprising representatives from the firms, the government sections providing funds, and the two facilitators from the service provider. Its role was to take forward four major development programs, run by four technical steering committees, each with a firm representative as chair and the rest seconded by their firms. These teams were supported by a designated service provider member as technical support, with control over program activities and responsibility for expenditure on its budget line items. The programs are Logistics, Supplier Development, Human Resource Development, and Operational Competitiveness.

Operationally the DAC works through a number of mechanisms which are themselves evolving; these include: (i) providing key operational services to members; (ii) exploring and enabling financial saving through joint activities; (iii) knowledge sharing through workshops and a newsletter; (iv) joint research disseminated in a user friendly manner; and (v) access to an on line data base.

The major development in the DAC was the impact on vertical co-operation. This is a cross-sector application of the principles of supply chain learning in which 1st tier suppliers use their resources, industry influence and knowledge to provide assistance to the 2nd and 3rd tier members. We can see this clearly if we look at the operation of the three core programs.

- ***Logistics:*** the broad objective of the logistics program is to share information, create price transparency, secure fair pricing and reduce costs through consolidation and load balancing across the three forms of logistics - sea, road and air. A key strategic initiative of the logistics program was to radically cut freight costs and initial results have been impressive. As part of the information-sharing and co-operation amongst DAC firms it was possible to develop a 'benchmark' of freight rates and link these to average prices so member firms had visibility of differences and their own position. The intention of such activities was not to form a cartel against the freight service providers and drive minimum charges down, but rather to cut costs for the smaller firms so that these impact on the systemic competitiveness of the value chain. Finally, a program is currently being initiated to coordinate road and air freight movements into and out of the regional automotive industry in order to cut costs on this front.
- ***Supplier Development:*** in this program the focus was on four key themes again dealt with by targeted working groups and namely: (i) raising purchasing skills; (ii) aligning purchasing functions; (iii) developing a supplier awareness database; and (iv) information sharing. In the 'skills area' activities included training needs identification, knowledge exchange and a number of workshops on the theme of 'best practice' in purchasing and supply management. Alignment of purchasing functions involved exploring mechanisms for developing a common approach to supplier management by OEM and 1st tier suppliers. In the database area attempts have been made to create a comprehensive directory of all suppliers to improve selection and facilitate comparison. Finally, the information sharing activities involve creating greater awareness of the dynamics of supply chains and the needs of OEM and major 1st tier suppliers. A series of workshops and other educational events are currently exploring how firms might respond to these challenges and develop tighter integration across the whole value chain.
- ***Human Resource Development:*** This program includes a number of key activities aimed at strengthening levels of human resource capabilities across the chain. In particular it has established a forum to provide an interface with the authority structure responsible for training – the Manufacturing, Engineering and Related Services Sector Education Training Authority (MERSETA). Since most firms were either unaware of grants for training or unable to follow the administrative procedures to successfully access their claims, a key objective was to assist

firms in all administrative, bureaucratic dealings with the MERSETA. The program is also working with a local training institute to develop a pilot for a basic adult education scheme.

D.3 CLUSTER DEVELOPMENT IN THE TOURISM SECTOR

The "Tourism Collaborative Action Initiative" represents a government driven project aimed at promoting the tourism sector at the national level. In 1998, the Department of Environmental Affairs and Tourism (DEAT), the Department of Trade and Industry (DTI), the Department of Transport (DOT), and the Industrial development Corporation (IDC) committed funds and expertise to this project and together with representatives from government, labor and business (comprising the Tourism Leadership Group – TLG), set about the task of conducting a predominantly consultant driven cluster study.

The ***objective*** of this project was to mobilize public and private resources for implementing collective actions and share a common vision and strategy for tourism development. The "clustering approach" was employed to initiate and underpin the analysis of the tourism sector. The value of using this approach for the specific purpose of the project was envisaged in the following:

- focus attention on various agendas (such as that of industrial relations in tourism, or the "open skies" policy, etc.) and engage with various constituencies at national level;
- demonstrate how "action" can be planned and implemented in discrete geographically defined areas;
- allow for business people in the same segment of the market to collaborate where needed in order to achieve better results for the sector overall.

The cluster design thus focused on ***three levels***, namely: (i) the national cluster process; (ii) the thematic cluster process; and (ii) the local processes. In particular:

- the national cluster level focuses on creating a forum whereby role-players at government, labor and business levels can identify blockages in the tourism system enabling environment, as well as provide suggestions for addressing these;
- the thematic cluster process focused on two pilots, namely eco-tourism and heritage tourism, through which to address strategies and market development issues for specific market segments
- finally, the local processes were employed in four specific locations, namely Magaliesburg (in the Northwest Province), Khayelitsha (in the Western Cape), Fish River (in the Eastern Cape) and Valley of the Olifants (in the Northern Province). The purpose was to provide replicable models and learning in applying cluster methods in order to build more competitive tourism communities.

Further, the cluster approach served as a useful ***analytical tool*** for understanding the factors that will impinge upon South Africa's ability to compete in tourism. The analysis of the South African tourism sector using the cluster approach reveals that:

- the country does possess a sufficiently strong array of interrelated key and supporting businesses to build future success and development of the tourism industry. However, the tourism distribution system (travel agents and tour operators) and component providers (accommodations, attractions, transportation, etc.) require further development and integration to achieve either satisfactory or optimal levels, particularly as they relate to product development, delivery and marketing;
- tourism growth is threatened by fundamental weaknesses in the country's economic foundations including human resources, safety and security, and inadequate marketing of South African tourism product. Public spending is currently increasing at a moderate pace at best and offers only gradual, incremental improvements.
- one of the keys to tapping South Africa's tourism potential is to develop more effective linkages

and synergies within the cluster and invest in critically needed economic infrastructure. A critical factor for success is to align all elements of the cluster or sub-sectors of the cluster to strategic tourist product offerings. This requires coordination and cooperation. And that is what clustering is about.

D.4 THE SALIGNA FURNITURE VALUE CHAIN INITIATIVE

The Saligna value chain has been reorganized and strengthen by plantation companies and sawmills as response to the massive reduction in domestic demand for the South African eucalyptus (called Saligna). Initially, local companies attempted to identify new markets to realize their plantation investments. Much of the early reaction was to expand pulp and paper processing operations and export chips and pulp. However they also tried expanding into higher value added activities in the furniture sector and to move into new market niches offering high unit prices. Saligna furniture offered a low-cost, environmentally acceptable alternative to increasingly scarce and highly priced traditional hardwoods.

One significant feature in the reorganization of the valued chain was the changing perspective by the sawmills. Traditionally, sawmills were able to effectively control the value chain through manipulating the quantity and quality of timber supplied to the manufacturers. But the changing conditions around the availability of timber supplies meant they needed to look at a much higher local interdependence of players along the value chain; the challenge was to overcome the long-standing barriers to trust and building a much higher level of co-operation amongst firms in the industry.

Much of the early development of the Saligna value chain network, the SVC, consisted in involving external intermediaries, perceived as neutral, who were able to facilitate a gradual development of such co-operation. The process of developing the SVC brought together representatives from all major players in the value chain (growers, sawmills, furniture manufacturers, the furniture export Council, two key government departments, the research and development infrastructure, and so on). Development activity was characterized by facilitated workshops organized by the external facilitators (drawn from a local university) who were able to highlight, articulate and clarify the rules of players in the chain and to begin to build a knowledge-based about the system as a whole.

One emerging feature from the early workshops was the identification and set up of technical task teams whose key role was to produce concrete practical results around issues of concern to the SVC. Membership of technical task teams was largely comprised of participants from the relevant enterprises across the chain and they were coordinated by the participants who played the lead role in that area.

Two key issues were identified: the first concerned the maximization of both quantity and quality of timber supplied and the second the upgrading of the product design, marketing and branding capabilities for this product for a demanding foreign market. As far as concern the first issue, the problem was essentially that the manufacturing component of the network was too small to guarantee enough of a critical mass drawing off from the sawmills to justify the sawmills according the SVC group some kind of favored supply status. Alternative options were explored but these also revealed some of the weaknesses in this emerging network. Many of the large state owned forests were scheduled for privatization and these contained much mature timber. The risk was that a majority of this would disappear into relatively low margins outlets associated with chipping and pulping for domestic and particularly for export markets. Smaller independent growers and sawmills saw an opportunity here and were keen to bid for small lots but neither they nor one large corporate saw miller with limited plantation resources were able to gain access to this newly

available timber resource. Much more importantly the network within their own ranks were divided between higher value adding producers able to make quality furniture and therefore able to pay more and other producers who were using this resource to make relatively low value cheap garden furniture.

One of the main failures seems to lay in the group's inability to develop significant co-operation between enterprises to enable improved production efficiency. Key challenges around process products and functional upgrading were left largely untouched. As a result they put much of their emphasis into lobbying for cheap wood and complaining about prices paid by the pulp and paper industry, while their attention to improvements into the final products was limited. Although the opportunity was opened for South African export of high-quality, design-intensive, high brand value production. In fact, what emerged was little change on the existing pattern of low design input, no value branding and insufficient concern for activities like finishing.

The initial founding of the SVC was supported by a government grant and when firms were asked to pay membership fees the cluster effectively collapsed. The external intermediaries withdrew and two key internal agents amongst the manufacturing group were brought out by a conglomerate with little interest in cluster or value chain development.

D.5 LESSONS LEARNED AND POLICY IMPLICATIONS

The case studies presented show that even in low trust environments, purposive action can create cluster and value chain cooperation and learning. They also demonstrate that interaction and mutually reinforcing relationships between value chain linkages and collective efficiency gain from cluster cooperative activities. Purposive action has played an important role in 'driving' through, the transfer of knowledge along semi-hierarchically governed value chains – this is especially the case in terms of the role of 1st tier firms in the DAC - and ensuring learning gains between the various firms comprising the, horizontally networked, clusters.

The following factors have had a crucial role in unpacking the analytic and policy issues at stake:

- The role of ***external actors***, who acted as neutral facilitators, was crucial to enhance trust. Trust was in fact a key factor in the functioning of the auto benchmarking club and the Durban cluster. Other elements include anonymous feedback via a third party and the opportunity to set 'ground rules' for handling information emerging during workshops. Once the degree of trust was established, also reluctant players became strong advocates of the network, offering information or opening up sensitive issues.
- The presence of ***key player firms*** in providing a governance, or coordinating role is important in creating and sustaining cooperation. The extent of involvement need not be active and explicit; for example, the major auto assembler in the KwaZulu-Natal region, Toyota, has never played a dominant role in the Benchmarking Club nor in the Durban Auto Cluster. However everyone knows that it supported both these initiatives and this has given considerable legitimacy to both clusters. In the same way, without the active participation of the sawmills which controlled key aspects of the furniture value chain, the Saligna cluster could never have operated, and would not have recorded any success. Unless enough stakeholders are involved, the network is likely to remain an abstraction. So the participation of a critical mass is a necessary condition. A major weakness of the Saligna cluster was that there were simply too few furniture manufacturers involved and their role in the industry was seen as marginal. Conversely, the substantial support in the auto sector by the component manufacturers firms meant that these became self reproducing and recruiting clusters.
- ***Regional/national government agencies*** played a key role in helping local firms through providing financial and institutional support particularly at the initial stages of the cluster. There

are additional benefits as the presence of a local or national government backing the cluster initiative can often play an important psychological and legal role at the start. Making use of government funding imposes its own discipline, since such financing requirements come with the need to have a clear legal framework, executive governance structures, business plans, and accountability. At the same time there is a 'down side' to government involvement if it is perceived as being slow and bureaucratic in administering support and when its involvement is seen to be promoting particular agendas too strongly and challenging the internal dynamics of the network. In the South African case, notwithstanding very impressive new government rhetoric about change in industrial policy, the inherited bureaucratic structure of government remained generally intact. There was insufficient re-conceptualization of the deployment implications of these new policies, of retraining departmental staff from being "paper pushers" to "change agents" fully attuned to the competitiveness demands being placed on South African firms, and hence reconfiguring institutional arrangements to ensure that implementation followed the policy shift. As such, the new policy support measures that replaced the previous protective regime were immersed in bureaucratic red tape – to the extent that it was extremely difficult for the clusters to access them.

D.6 REFERENCES

- Morris M., Robbins G., Barnes J., 2004, "What Should Be The Role Of Government In Fostering Clusters?", paper presented at *50th Anniversary Conference Reviewing the First Decade of Development and Democracy In South Africa*, Durban.
- Morris M., Barnes J., 2004 "Policy Lessons In Organizing Cooperation And Facilitating Networked Learning In Value Chains And Industrial Clusters", mimeo.
- Morris M., Bessant J., Barnes J., 2004, "Using learning networks to enable industrial development: Case studies from South Africa ",mimeo
- Morris M., Robbins G., 2004 "The role of government in creating an enabling environment for inter-firm cluster co-operation: Policy lessons from South Africa", in McCormick D., Oyelaran-Oyeyinka B., eds., *Clusters in Africa: Pattern Practices and Policies for Innovation and Upgrading*, INTECH.
- "The South African Tourism Cluster" Chapter 2, The Cluster Consortium - Strategy in Action (1999).

ANNEX E – USAID CLUSTER-BASED COMPETITIVENESS INITIATIVES[16]

E.1 OVERALL APPROACH

USAID is increasingly adopting a cluster-based approach in order to promote competitiveness in developing countries. USAID launched its first major cluster-based competitiveness initiative in Lebanon in early 1998 and its portfolio rapidly expanded to include some 30 projects.

The core components of a USAID competitiveness initiative are:

- ***Cluster Development to Re-position Industry***. The "heart" of competitiveness initiatives is cluster development to re-position the industry. The process of a cluster development, collaboratively designing a strategy and identifying and executing targeted actions, results in "re-positioning industry" towards niche markets and greater value-added products.
- ***Strategic Reforms of Policies, Laws and Regulations***. Such reforms typically emanate from the cluster development processes. Reforms are carried out according to their impact on cluster competitiveness.
- ***Changing the Dialogue***. To influence policy, legal and regulatory reforms, the private sector must interact with government. How the private sector conducts such interaction is a central element of competitiveness initiatives.
- ***Partnerships.*** Partnerships may include, for example, joint investments, agreements to separate functions and responsibilities into public or private hands, or collaboration on institution building. Dialogue both within the private sector and between the public and private sectors becomes, according to this approach, a key element to turn the competitiveness process more effective and more trusted, and to increase the frequency of joint activities and investments.
- ***Improving Understanding and Support for Competitiveness.*** Lastly, competitiveness initiatives typically include efforts to broaden knowledge of competitiveness, both within targeted groups and the general public. Many different mechanisms for information dissemination are used, including, for example, newspaper articles and editorials, workshops to deepen university professors' and students' knowledge, round-table discussions involving public and private sector leaders, etc.

E.2 PROJECTS IMPLEMENTED

Since 1998, USAID has implemented or launched cluster-based competitiveness activities in some transitional and developing countries. The total value of these activities is around US$ 60 million. USAID projects range from introduction of competitiveness principles and bench-marking a country's competitive position (relatively small-scale and low-budget activities) to full-scale cluster-based competitiveness initiatives. USAID competitiveness initiatives are typically implemented by contractors (private consulting firms), retained through the usual tendering mechanisms. Several large US consulting firms have been involved in these initiatives (Chemonics, Nathan Associates, etc.).

[16] This annex is largely based on USAID, 2003, "Promoting Competitiveness in Practice An Assessment of Cluster-Based Approaches", The U.S. Agency for International Development, The Mitchell Group, Inc. Washington, DC. Another evaluation exercise is reportedly ongoing but no reference could be found.

Most of USAID's cluster-based competitiveness work has taken place in the Europe and Eurasia region, as well as the Asia and Near East region. However, it is important to note that in both regions, the portfolio is dominated by a few major initiatives in selected countries (i.e. Macedonia, Georgia, Croatia, Sri Lanka, Mongolia, Lebanon). Few operations have been conducted in ACP countries, namely Dominican Republic and Uganda, plus smaller initiatives in South Africa. A summary presentation of USAID cluster-related projects is provided in Table E.1 below.

Table E.1 Summary of USAID Cluster-based Competitiveness Projects

Country	Project	Period	Budget (US$)	Target Clusters
Azerbaijan	Rural Enterprise Competitiveness Project	04/2003 12/2008	NA	NA
Bosnia Herzegovina	Industry Cluster Competitiveness Project	07/2002 12/2003	2,000,000	• Furniture • Tourism
Bulgaria	National Competitiveness Exercise	05/2002 04/2003	256,858	• Apparel • Canned produce • ICT • Maritime transport • Tourism • Wine
Cambodia, Indonesia, Philippines, Thailand, Vietnam	Competitiveness Benchmarking and Regional Conference	09/2000 04/2001	765,943	NA
Cambodia, Thailand and Vietnam	South East Asia Competitiveness Initiative	09/2002 09/2004	3,022,683	Vietnam: • Ceramics • Computer software Thailand: • Jewelry • Tourism • Agriculture • Handicrafts • Seafood • Silk Cambodia: • Non-traditional fishing
Croatia	Competitiveness Initiative	04/2001 05/2004	3,280,716	• Information and communications technology • Tourism • Wood
Dominican Republic	Critical Assistance to the Government of the Dominican Republic Policy Reform Efforts	07/1998 12/2000	1,180,066	NA
Dominican Republic	Policies to Improve Competitiveness in the Dominican Republic	06/2001 03/2003	1,371,912	• Eco-tourism • Horticulture • Tourism

Dominican Republic	Competitiveness and Fiscal Policy Reform	03/2003 09/2007	NA	NA
Egypt	Workforce Development Strategies	07/2000 04/2001	492,776	• Information technology • Tourism
Egypt	Tourism Workforce Development	02/2002 02/2004	2,000,000	• Tourism
Europe and Eurasia	Agro-industry Competitiveness in E&E	09/2001 05/2002	50,000	• Agro-industry • Environment
Europe and Eurasia (Azerbaijan, Serbia, Romania, etc.)	Regional Agro-industry Competitiveness Initiative	09/2002 03/2004	500,000	NA
Georgia	Georgia Competitiveness Initiative	03/2003 03/2005	9,000,000	NA
Haiti	Assistance to *Centre pour La Libre Entreprise et La Démocratie*	10/1999 12/2000	100,949	NA
Hungary	NIS Regional Competitiveness Conference	03/2002 03/2002	90,966	NA
Kazakhstan, Russia and Ukraine	Competitiveness Building Exercises	07/2001 02/2003	299,521	NA
Lebanon	Lebanon Economic Policy Assessment	02/1998 05/1998	59,482	NA
Lebanon	Lebanon Economic Growth Initiatives	08/1998 01/1999	658,564	NA
Lebanon	Lebanon Industry Growth Partnership I, II and III	07/1999 09/2002	2,108,933	• Agro-industry • Information technology • Business Services • Tourism
Macedonia	Macedonia Competitiveness Activity	09/2002 09/2006	11,674,376	• Sheep • Tourism • IT • Wine
Mongolia	Competitiveness Exercise	10/1999 05/2000	292,219	NA
Mongolia	Competitiveness Initiative	10/1999 08/2004	4,358,709	• Cashmere • Meat • Tourism
Serbia	Serbia Competitiveness Policies	09/2002 09/2003	2,000,000	NA
South Africa	Workforce Development Strategies and Action Planning Tool	09/1998 07/1999	275,719	• Tourism

South Africa	Capacity Strengthening	08/1999 10/1999	48,176	NA
Southeast Europe (Albania, Croatia, Macedonia and Romania)	National Competitiveness Building	09/2000 03/2001	199,652	NA
Sri Lanka	Competitiveness Benchmarking Study	06/1998 12/1998	202,378	NA
Sri Lanka	Workforce Development Strategies	04/2000 12/2000	109,512	• Garments • Information technology • Jewelry • Rubber • Tea • Tourism
Sri Lanka	The Competitiveness Initiative	08/1999 08/2003	11,140,689	• Ceramics • Coir • Information technology • Jewelry/Gems • Rubber • Spices • Tea • Tourism
Uganda	Competitive Private Enterprise and Trade Expansion	11/2000 03/2002	2,422,287	• Coffee • Cotton • Fish

Source: USAID (2003)

E.3 TYPICAL STRUCTURE

A typical competitiveness initiative comprehends the following five major phases:

- ***Phase 1 - Conducting Initial Competitiveness Diagnostics***: this phase is led by the contractor. The objectives are mainly to generate understanding of competitiveness principles and to identify the main issues to be addressed. The usual key actions taken in this phase are assessing the country's economic foundations; benchmarking the country against comparative and/or competitive peers; conducting an intensive series of workshops to improve understanding of competitiveness and its relevance in the local context; and initiating outreach to local media, universities and other public communications channels;
- ***Phase 2 - Identifying Clusters***: clusters or sectors are identified according to criteria important to achieving the country's and donor's economic growth objectives. In this phase different actors are involved:
  - the contractor, whose responsibility is to benchmark various clusters versus international competition and to convene a second round of intensive workshops involving a broad-cross-section of mainly private sector leaders and players;
  - the clusters' members, who have to demonstrate, individually and collectively, their willingness to engage actively and constructively in fulfilling these responsibilities;
  - USAID, which decides whether to proceed with a competitiveness initiative, based on observation and feedback solicited from contractors and clusters;
- ***Phase 3 - Crafting Cluster Strategies***: Phase 3 deepens the relationship among cluster participants, and establishes a roadmap for cluster actions. From an implementation perspective, the objective of Phase 3 is to facilitate a strategic planning process that enables a

cluster to define its common interests, strategic vision and action plan. Three steps compose this phase:

- cluster formation: the first step concentrates on the "process" that will guide the competitiveness initiative;
- cluster analysis: the second one includes a SWOT analysis, and culminates in agreement on the "diagnosis" of major challenges and opportunities;
- cluster strategy and action plans: the last stage serves to develop a vision and targeted objectives.

➡ ***Phase 4 - Implementing Cluster Strategies***: during this phase each cluster will take different steps to achieve its goals; the objective is to implement the strategy and action plan developed in Phase 3. The contractor has a key supporting role in this phase. Types of support provided concern the following activities: targeted technical assistance; specialized training; international market research; policy, legal and regulatory analysis; facilitation of dialogue and engagement with the public sector; and media outreach;

➡ ***Phase 5 - Developing Exit and Sustainability Strategies:*** Each cluster's strategy differs according to context specific factors. However three general exit strategies have been identified:

- formation of a new (non-profit, non-governmental) organization to continue cluster activities;
- agreement to continue cluster activities within an existing organization;
- commitment to continue activities and meetings in an informal manner, rather than through a specific entity.

E.4 MAIN LESSONS LEARNED

The main lessons emerged during the above mentioned evaluation exercise can be summarized as follows:

1. ***The most important determinant of success is the "sweat-equity" investment.*** To be developed successfully, the cluster initiative impinges heavy investment in terms of time, resources and, most importantly, "sweat-equity" for the good of the industry as a whole.

2. ***The private sector is the key driver of cluster development.*** The main role has to be played by firms, rather than public sector institutions, which conversely have to formulate economic policy. Therefore, successful cluster-based competitiveness initiatives are fundamentally private sector driven, with links to the public sector.

3. ***Lack of regular tracking of meaningful performance indicators.*** Far-reaching, concrete results from cluster-based competitiveness initiatives are scarce, mainly because this is time consuming activity. More importantly, a monitoring system should be implemented in order to periodically evaluate progress toward (or lack thereof) the target.

4. ***The presence of a leader is a key advantage.*** The presence of business leaders and champions are key factors to making the cluster development work. The contractor should promote a favorable climate to attract new entrepreneurs.

5. ***Cluster development is often hardest in traditional industries.*** Those entrepreneurs working in traditional industries often have backward- rather than forward-thinking; so cluster selection must rely on cluster members' interest and enthusiasm.

6. ***Excess of financial resources availability may produce strong bias in the project.*** Although it is not possible to prescribe a uniform budget for cluster-based competitiveness initiatives, tens of millions of dollars are not likely to be necessary for this type of development assistance. Indeed, the more money available, the less the private sector may be willing to devote its own resources, thus undermining local ownership and initiative.

ANNEX F – CDE INITIATIVES INVOLVING CLUSTER AND ENTERPRISE NETWORKS DEVELOPMENT

In this Annex we present the profiles of some CDE initiatives that more or less explicitly involve an element of cluster and/or enterprise network promotion. In particular, the Annex covers the following four projects:

- Madagascar – *Appui à la mise en réseau des PMI textile habillement*;
- Continental Africa – Development of aquaculture;
- ACP Countries – Fish Sanitary Program and Value Addition to Fish Products and By-products;
- Tanzania – Tourism Promotion.

The project profiles follow a standard format, with the provision of basic project data, an overall description of project activities/components, a presentation of results achieved or expected, and a section on lessons learned and comments

PROJECT PROFILE #1 - MADAGASCAR

Basic Data

Title	*Appui à la mise en réseau des PMI textile habillement*
Location	Antananarivo and Antsirabe
Period	2004 – 2006
Donors	CDE. Some co-financing from AFD is expected
Budget	€ 500,000 (approximate)
Objectives	Enhance competitiveness of local and foreign-owned textiles and clothing manufacturers, through the strengthening of inter-firm cooperation and a series of joint actions.
Beneficiaries	Private enterprises in the textiles and clothing sectors
Project Team	• 1 local cluster broker (*animateur*) • short term expatriate consultants (3 to 5 missions per year)

Description

Madagascar's textiles and clothing industry was badly affected by the political turmoil of 2002, which led to the closure of a number of factories and to a dramatic decline in output. The project is aimed at supporting the industry in regaining a foothold in the international market. This is to be achieved through the promotion of an enterprise cluster, with cluster participants increasingly capable of dealing with issues of common interest. In parallel, the project aims at enhancing the awareness of benefits associated with clustering and networking among the relevant players (government authorities, donors, etc.), so as to create a positive environment for further development.

The project is implemented on behalf of CDE by *Initiative, Cité et Développement* (ICD), a French entity with long experience in promoting clustering in the clothing industry in France (*La Cité de l'Initiative*, Roubaix). The project builds upon: (i) earlier preparatory work carried out in Madagascar in 2001 and 2002, and (ii) similar clustering initiatives in the clothing and shoemaking sectors in Mauritius.

The project started in 2004 and in the first year activities were mainly aimed at identifying and assisting a *noyau dur* of enterprises interested in cooperating. This involved the formal establishment of a cluster association (*Text'ile Mada*) and the recruitment of a cluster broker responsible for facilitating inter firm cooperation. In subsequent years the project is expected to focus on operational activities, such as the participation in trade fairs, the establishment of antennae for the sourcing of raw materials and inputs, and the establishment of a "service center", providing services on a shared basis (possibly in collaboration with a similar structure operating in France, the *Centre de Services Techniques en Temps Partagé* - CSTTP).

Results

The project started with a scouting and promotion phase, which involved visits to some 35 companies and the organization of workshops aimed at fostering the willingness to cooperate. As a result, 17 enterprises (with a workforce of some 5,500) participated in the establishment of the cluster association (*Text'ile Mada*), which was duly registered. Participating enterprises formed ***specific working groups***, to identify practical solutions to three sets of issues of common interest, namely: (i) cost management (handling of transportation costs, relations with banks, methods for cost calculation, productivity enhancement measures); (ii) human resources (hiring policies, training needs, promotion of industrial culture); and (iii) commercialization and procurement (review of fashion trends, selected issues in dyeing, joint sourcing of raw materials and other inputs not available locally). As a result of these activities, some significant results were achieved in selected areas (e.g. a 25% reduction in transportation costs, resulting form the pooling of shipments to European clients). Another important result was the ***increased awareness*** of the benefits associated with clustering among various local and international entities (Ministry of Trade, Industry and Private Sector, World Bank, *Agence Française de Développement*, etc.). As a consequence, the AFD expressed interest in the co-financing of future activities, to the tune of € 800,000 over three years.

Lessons Learned/Comments
The project clearly confirms the need to combine the initial promotional phase with some operational activities, in order to quickly achieve some tangible results (e.g. the cost savings in international freight) and therefore keep the momentum in the cluster building process. The project is also placing significant emphasis on long term sustainability. This is to be achieved, *inter alia*, through the progressively increasing co-financing of certain costs (e.g. the salary of the cluster broker) by cluster participants.

PROJECT PROFILE #2 – CONTINENTAL AFRICA	
Basic Data	
Title	Aquaculture Development in Continental Africa
Location	Various countries in Western, Eastern and Southern Africa
Period	2005 - 2007 (expected)
Donor	CDE
Budget	€ 550,000 (approximate)
Objectives	Support the development of tilapia farming, with the goal of achieving a significant increase in output (10,000 tons/year over a 10-year period)
Beneficiaries	Local aquaculture companies and their associations
Project Team	• short term expatriate expertise • a network of local technical experts

Description

In the first half of 2005 the CDE was in the process of formulating a program to support the development of aquaculture across Sub Saharan countries. In particular, the program is expected to support the development of tilapia farming, for which a significant domestic and international market is deemed to exist. The program is expected to start with an ***identification phase*** that will allow the collection of detailed information on tilapia farming in the target countries as well as the short listing of potential beneficiaries (enterprises and associations). The ***implementation phase*** would adopt a two-pronged approach, with: (i) the provision of direct assistance to selected enterprises on technical and commercial matters, and (ii) the creation of a network of local tilapia farming experts, capable of providing further assistance to enterprises on a regular basis.

In this project, the enterprise network development element is represented by the assistance to associations of producers, that are expected to play a role in coordinating the activities of various players (producers of feed, aquaculture companies, exporters, etc.).

Results

The program is expected to achieve the following results:

- 10 aquaculture operations have become operational over a period of two years, with an increase in output of some 1,000 tons/year;
- 3 other companies (i.e. feed producers) have been assisted;
- a network of 7 national and regional well qualified tilapia farming experts has been created;
- 2 producers' associations have become operational

In addition, the program is expected to generate a database of enterprises and local expertise that would facilitate the assessment of future requests for assistance and the formulation of related interventions.

Lessons Learned/Comments

The project displays a very practical approach, with well defined, quantitative targets. From the cluster/network development perspective, they litmus test will be the ability to effectively establish or upgrade the producers' associations.

PROJECT PROFILE #3 – ACP COUNTRIES (AFRICA AND PACIFIC)	
Basic Data	
Title	Fish Sanitary Program and Value Addition to Fish Products and By-products
Location	Various ACP countries in Africa and the Pacific
Period	2006 - 2007 (expected)
Donor	CDE
Budget	€ 320,000 (approximate)
Objectives	• Enhancement of sanitary standards • Expansion of high value added production
Beneficiaries	National sanitary bodies, laboratories, fishing and fish processing companies and their associations
Project Team	• short term expatriate expertise • short term local expertise

Description

This initiative builds upon the CDE's vast experience in the provision of assistance to ACP fishing and fish processing operators and pursues a dual objective. ***First***, the inadequate sanitary standards are notoriously a major drawback for the fishing industry in ACP countries. The problem is being addressed by the EC-funded SFP program (Strengthening Fishery Products Health Conditions in ACP/OCT Countries) that since 2003 has been providing technical and financial support to various countries. The CDE initiative is intended to complement SFP activities, through the reinforcement of cooperation among the various stakeholders involved in sanitary issues (national sanitary authorities, laboratories, fish and fish processing enterprises, and their associations). ***Second***, many ACP countries are currently facing an increasing scarcity of resources, caused by over fishing. At the same time, there is a high level of waste at the various stages of the production chain, leading to a significant economic loss. Therefore, the CDE initiative aims at supporting the production of higher value fish products, by providing assistance to selected fishing operators and intermediary organizations.

In this case, the cluster/network promotion element mainly relates to the assistance to be provided to business associations, which, as a result of the project, are expected to be able to formulate coherent business development plans and to promote their endorsement/adoption by the relevant government authorities.

Results

The initiative is expected to achieve the following results:

- 10 fish processing operators have enhanced their sanitary standards and can be regarded as fully compliant with relevant EU requirements;
- the level of waste at factory level has been reduced and value added has increased;
- 2 or 3 producers' associations have been strengthened and have achieved the ability to formulate and effectively promote and implement action programs for their members.

Lessons Learned/Comments

The project adopts an integrated approach, by combing technical assistance at firm level with the provision of support to business associations. The latter is deliberately targeted at enhancing capabilities in the area of collective action, *de facto* incorporating a strong network development element.

PROJECT PROFILE #4 – TANZANIA	
Basic Data	
Title	Tourism Promotion
Location	Mainland Tanzania and Zanzibar
Period	2005 - 2006
Donor	CDE
Budget	€ 165,000 (approximate)
Objectives	• Strengthen private tourism associations • Strengthen operational capabilities and improve the regional exposure of tourism operators • Reduce the negative environmental impact of tourism
Beneficiaries	Tourism sector business associations and selected SME tourism operators
Project Team	• short term expatriate expertise (expected) • short term local expertise (expected)

Description

Conceived in early 2005, this initiative builds upon previous interventions in Tanzania's tourism sector. The project includes four components, namely:

- The promotion of Tanzania in the regional tourism market, through the participation in two trade fairs (Indaba in Durban and Karibu in Arusha);
- The provision of training to two sector associations, namely: (i) training of executive managers of the Zanzibar Association of Tourism Investors (ZATI), and (ii) training on trade fairs organization for the Tanzania Association of Tour Operators (TATO);
- The provision of training and consulting to selected Zanzibar tourism SME;
- The implementation of a study on the impact of waste generated by tourism activities in Zanzibar.

In addition, the project is expected to assist in the proper preparation of other initiatives preliminary identified at the inception stage, thereby paving the road for the launch of additional, coordinated actions in support of the tourism sector. The cluster/network promotion element mainly relates to the assistance to be provided to ZATI and the concurrent study on waste management in tourism, which is expected to raise the capabilities for collective actions in a crucially important field for the tourism industry in Zanzibar.

Results

The initiative is expected to achieve the following results:

- Tanzania is better represented in regional tourism fairs and capabilities for the organization of such fairs are enhanced;
- Operational capabilities of at least 3 tourism companies in Zanzibar are improved;
- Management practices of sector associations are improved;
- Options to effectively reduce the impact of tourism-related waste in Zanzibar are identified.

Lessons Learned/Comments

In Sub Saharan countries, environmental considerations typically are not regarded as severe constraints by operators and, in general, they do not provide a sufficiently strong basis for "collective action" to emerge. The Zanzibar tourism industry is an exception in this respect. Indeed, the exponential growth recorded in tourism activities coupled with the dilapidated state of waste water/solid waste collection and treatment systems, are posing an increasingly severe threat to the very survival of the tourism industry in the island. The theme clearly emerged during conversations held by the Consultant with key players in the tourism sector in July 2005. The operators appeared acutely aware of the need "to do something, before it's too late" but, at the same time, candidly admitted their lack of experience in the formulation and implementation of joint action plans. In these conditions, the CDE intervention appears both extremely relevant and well timed and the project could play a crucially important catalytic role.

ANNEX G – OPERATIONAL SUGGESTIONS FOR CLUSTER/NETWORKS DEVELOPMENT INITIATIVES

G.1 INTRODUCTION

In this Annex we formulate some practical suggestions and recommendations for the identification and design of cluster and enterprise networks development initiatives. Several issues resulting from the experience of practitioners active in various countries are discussed in some detail in Section G.2. Based on this analysis, a tentative check list for the formulation of cluster and enterprises network development operations is presented in Section G.3.

G.2 ISSUES IN IDENTIFICATION AND PROJECT DESIGN

Identifying Areas of Intervention. The success of any cluster or enterprise network initiative depends on the willingness of local actors to buy into the initiative, to interact with external agents, and to collaborate with other local actors. Therefore, any cluster/network identification effort must focus on local actor structures. Another factor having a significant impact on the desirability and feasibility of cluster/network development initiatives is represented by the economic conditions of the target area/sector. Based on these two variables, Table G.1 below gives an indication of what one should look for when identifying possible areas of intervention.

Table G.1 Identifying Areas of Intervention

	Cluster is doing well	**Cluster is doing not so well**
Actors are interested in joint action	***Ideal case***	***Promising case***
Actors are not interested in joint action	***"Busy cluster" case***	***Hopeless case***

Source: adapted from *Mesopartners's PACA*

The ***green cell*** indicates a promising opportunity for a cluster/network initiative: a concentration of firms that is under pressure, i.e. where local actors are out of their comfort zone anyway, and where local actors find the idea of collective action to promote competitiveness and upgrading plausible. The ***yellow cell*** represents the kind of case one would hope for: a cluster that is already doing well and where local actors have enough vision to understand the importance of collective action for an even better performance. In such a case, the proposed intervention has good chances of achieving a quick win, which may be important to convince decision makers and skeptical actors in other, un-cooperative environments ("demonstration effect"). The two ***red cells*** in the lower row represent the cases where a cluster/network initiative is unlikely to succeed. A cluster that is doing well without collective action (and with no perception of the benefits of collective action) will be absolutely non-responsive to the suggestion of a cluster initiative. Similarly, a cluster under pressure that suffers from a very non-cooperative local culture is also unlikely to provide the necessary conditions for a successful cluster initiative.

Bottom-up vs. Top-down Approach. Initiatives aimed at promoting clusters and enterprise

networks may adopt a top-down or a bottom-up approaches. Examples of the former include initiatives promoted by national governments (as in the case of South Africa's cluster development policy – see Annex D) as well as some rarer initiatives launched by national or regional business associations (an example is *CresceMinas*, a cluster development initiative pursued for some time by the *Federação das Indústrias do Estado de Minas Gerais*). Bottom-up initiatives are driven by local business associations or even informal circles (as in the case of the Durban Auto Cluster – see Annex D) and/or by local/municipal governments (e.g. technical service centers in Italy or the Dortmund's cluster initiative in Germany).

In general, ***top-down initiatives*** tend to adopt a paternalistic approach ("what can we do for clusters" rather than "what can we do with clusters") and, more often than not, they suffer from a lack of ownership. As a consequence, results are often well below expectations. In contrast, the adoption of a ***bottom-up approach*** ensures that the needs of those directly affected by the initiative are duly taken into account since the very beginning, i.e. at the design stage. This is not to deny the potentially crucial role played by external agents, be they public entities, donors or national business associations (see Main Text, Section 3). Simply, any cluster and enterprise network initiative must be designed so as to involve the key private players since the beginning.

Anticipating Obstacles to Implementation. Any cluster or enterprise network development initiative is likely to encounter three main types of obstacles. In particular:

- ***Obstacles to cooperation among firms***. They emerge when the social environment is not conducive (a sort of prisoner's dilemma), when transaction costs are high (e.g. firms are geographically dispersed) and when the risks of opportunistic behavior are high (e.g. whenever products can be easily copied);
- ***Obstacles to cooperation between firms and supporting institutions***. They may originate when business associations and chambers of commerce are not perceived as genuine expressions of the business community or are viewed as the agents of other, competing groups (e.g. when they are controlled by the "big guys");
- ***Obstacles to cooperation between private and public actors***. In many developing countries government entities are seen with suspicion by private sector operators. Sometimes this compounds with ethnic, regional or political rivalries, as the public sector may be viewed as "captured" by certain groups.

Any cluster or network identification exercise should try to assess *ex ante* the severity of the above mentioned types of obstacles and identify ways and means to overcome that during implementation.

Other Issues. The successful implementation of cluster/network development initiatives requires adherence to certain criteria. In particular:

- The key challenge in cluster/network initiatives is ***process management***. Those involved in the implementation should define their role as communicator, facilitator and moderator, without unduly replacing local actors. Equally important, proposals for specific actions should be finely tuned to the capabilities of local players. Overwhelming local actors with too many proposals or with proposals for cooperative activities that are inconceivable for them is utterly counterproductive, and could spoil the chances of success;
- Significant efforts must be deployed to seek the ***active involvement of local institutions*** from the start. These include business associations, but also training centers and technology extension agencies. For these organizations, a cluster/network development initiative creates an opportunity to develop a better understanding of demand and to adjust their offers accordingly. In turn, this will greatly enhance long term sustainability;
- The ***role of government entities*** must be carefully assessed. If the private sector perceives the government as a serious obstacle to growth, the involvement of government bodies may seriously jeopardize chances of success. On the other hand, the active participation of public

entities may be desirable to ensure that certain accompanying policy measures are more easily adopted and/or that adequate resources are allocated to certain support institutions. Indeed, building a constructive relationship between government and private sector is one of the most difficult challenges in cluster or enterprise network development.

G.3 SUMMING UP

Based on the above considerations, it is possible to formulate a tentative "check list" for the identification and the design of cluster and enterprise network operations. The check list is presented in Box G.1 below. Needless to say, in its practical use the "check list" will require some adaptations, to reflect the peculiarities of the specific case at hand. At the same time, whenever significant prior information on the sectors and/or areas is available, certain items indicated in the check list may turn out to be redundant or, at least, will not require any specific work. This appears particularly the case of the PRO€INVEST program, which – as already pointed out in other parts of this report – may be in the position to capitalize upon the CDE's vast operational experience at the sector level.

Box G.1 Check List for Cluster/Network Identification and Design

- ***How well is the sector/area doing?*** Sectors/areas facing serious economic difficulties are unlikely to provide a good basis for successful interventions. In the ACP countries, this may be the case of some traditional garments or metalworking clusters. On the other hand, situations where the performance is already positive are also unlikely to provide a good starting point for cluster or network development initiatives, unless some significant change is expected to take place and local actors are aware of that (see below).

- ***Are there threats or opportunities that could be best tackled/seized through some form of collective action?*** In a fast evolving economic environment, external conditions may change dramatically. Therefore, current performance must be placed in a dynamic context, with the assessment of emerging threats and opportunities. It is important that both the nature and the magnitude of potential threats or opportunities identified at the design stage be such that collective action at local level may indeed have a bearing (which may not always be the case, for instance in the face of a major technological transformation).

- ***Are local firms and institutions ("local actors") aware of these threats or opportunities?*** The existence of potential threats or opportunity does not mean that local players are sufficiently aware of them. In certain cases (e.g. the "survival clusters" found in some African countries) the degree of awareness appears to be extremely low. Under these conditions, local actors may not be sufficiently responsive and the envisaged initiative would be excessively biased towards a top-down approach.

- ***Are local actors aware of the potential benefits of collective action and willing to cooperate?*** Unless there are indications of a certain willingness to cooperate, any cluster or network development initiative may result in a futile exercise. Often, willingness to cooperate may be judged from past behaviour (e.g. the existence of grass roots self help organizations). In certain cases, a deeper analysis of broad social, ethnic and religious factors may be warranted at the design stage.

- ***What are the obstacles that may prevent cooperation among firms?*** Even when a reasonably cooperative environment is found, concrete inter firm cooperation may be hampered by various factors. In general, rivalry tends to prevail (and, therefore, the chances of establishing a good working relationship tend to be lower) when firms are selling undifferentiated products or services, where le main competitive tool is pricing. On the other hand, the chances for achieving an effective cooperation are greater when target beneficiary firms sell complementary products or services. A typical example is provided by agro processing firms selling different products (say, edible olive, baked products and

canned meat) but through the same distribution channels, which gives rise to potential synergies and cost savings in marketing and logistics.

- ***What are the obstacles that may prevent cooperation between firms and local support structures?*** This largely boils down to the theme of how representative are the existing local business associations and chambers of commerce. In case they are viewed as the *longa manus* of an unfriendly government or of large companies, the likelihood of establishing good working relationships are obviously reduced. On the contrary, even relatively undeveloped but truly representative business associations may play a crucially important role in cluster and network development. As a result of their participation in the process, these entities are likely to strengthen their role and position, thereby contributing to ensure long term sustainability to cluster development efforts.

- ***What are the obstacles that may prevent cooperation with public entities?*** Establishing an effective working relationship between private and public actors is of crucial importance, and this may well require specific actions. However, there are cases when the participation of extremely unwelcome public entities may undermine the initiative's overall credibility. It is important that the pros and cons of involving the government (or specific government entities) be carefully assessed at the design stage.

- ***Is the work plan realistic, i.e. in line with local needs and capabilities?*** Eve when all the preconditions are fulfilled, a cluster/network development initiative may still fail because the work plan is not in line with local needs and expectations. Overambitious work plan (say, seeking the formal establishment of a joint selling or procurement unit in a matter of weeks) are likely to attract scepticism or generate frustration among local actors. Also, the operational activities financed under the initiative must be susceptible of yielding some tangible results to the beneficiaries. Generic studies and training courses on economics principles are unlikely to attract the interest of beneficiary firms.

BIBLIOGRAPHY

Studies on Enterprise Clusters and Networks in ACP Countries

- Alila P.O. and McCormick D., 1997, "Firm Linkages in Kenya's Tourism Sector", Discussion Paper No. 297, Institute for Development Studies, Nairobi.
- Arnould E. J. and J. J. Mohr, 2005, "Dynamic transformation for base-of-the pyramid market clusters" *Journal of the Academy of Marketing Science* vol.33, no.3: 254-274.
- Barnes J., 2004, "A Strategic Assessment of the South African Wearing Apparel Sector", for Trade and Industrial Policy Strategies, Mimeo.
- Barnes J., 2005, "A Strategic Assessment of the South African Clothing Sector", for the National Economic development and Labour Council, Mimeo.
- Barr A.M., 1995, "The Missing Factor: Entrepreneurial Networks, Enterprises and Economic Growth in Ghana", Centre for the Study of African Economies Working Paper WPS/95–11, University of Oxford, CSAE Publishing.
- Barr A., 2000, "Collective Action and Bilateral Interaction in Ghanaian Entrepreneurial Networks", Working Papers No. 182, UNU World Institute for Development Economics Research, Helsinki.
- Basant R., undated, "Knowledge Flows and Industrial Clusters", International Development Research Centre Background Paper, Mimeo.
- Biggs T., Moody G.R., van Leeuwen J-H., and White E.D., 1994, "Africa Can Compete: Export Opportunities and Challenges for Garments and Home Products in the US Market", World Bank Discussion Paper No. 242, Africa Technical Department, Washington.
- Biggs T., Miller M., Otto C., and Tyler G., 1996, "Africa Can Compete: Export Opportunities and Challenges for Garments and Home Products in the European Market", World Bank Discussion Paper No. 300, Africa Technical Department, Washington.
- Biggs T. and Shah M. N., 2004, "African SME, Networks and Manufacturing Performance", mimeo, World Bank.
- Brautigam D., "Substituting for the state: indigenous institution and industrial development in Eastern Nigeria", School of International Service, American University, Washington.
- Burrows S., 1992, "The Role of Indigenous NGOs in the Development of Small Town Enterprises in Ghana", in J. Baker and P.O. Pedersen, (eds), *The Rural–Urban Interface in Africa: Expansion and Adaptation*, Uppsala: The Scandinavian Institute of African Studies.
- Corporate Strategy and Industrial Development, 2005, *Conveyor Industry Sub-sector Report*.
- Da Silva M.,1999, "The Rise and Fall of an Enterprise Cluster in Africa: The Jewellry Industry in South Africa", *The South Africa Geographical Journal*, Vol. 81
- Dawson J., 1988, "Small-scale Industry Development in Ghana: A Case Study of Kumasi", report for the Overseas Development Administration, London.
- Dawson J., 1992, "The Relevance of the Flexible Specialization Paradigm for Small-Scale Industrial Restructuring in Ghana", *IDS Bulletin* vol. 23 (3): 34–8
- Dike, E., 1997, "Structural Adjustment and Small-Scale Industrial Entrepreneurs in South-Eastern Nigeria", Discussion paper, DP 81. UNRISD, Geneva.
- Dobreva R. et al, 2005, "Plastics Industry: Overview Report", University of the Witwatersrand.
- Dolan C. and Humphrey J., 2000, "Governance and Trade in Fresh Vegetables: The Impact of

UK Supermarkets on the African Horticulture Industry", *Journal of Development Studies*, Vol. 37, No.2.

- Dolan C., J. Humphrey and C. Harris-Pascal, 1998, "Horticulture Commodity Chains: The Impact of the UK Market on the African Fresh Vegetable Industry", IDS Working Paper No. 96, Institute of Development Studies, Sussex.
- Eifert B., Gelb A., and Ramachandran V., 2005, "Business Environment and Competitive Advantage in Africa: Evidence from the Investment Climate Data", ICA Paper.
- El-Shahat S., undated, "Power and learning in the Egyptian Furniture Cluster of Domiatt".
- Fafchamps, M., 1996, "The Enforcement of Commercial Contracts in Ghana", *World Development*, vol. 24 (3): 427–48
- Ferrero L. and Maffioli A., 2004, "The Interaction between Foreign Direct Investment and Small and medium-sized Enterprises in Latin America and the Caribbean: A look at Regional Innovation systems", Inter-American Development Bank, Working Paper Series no. 6A.
- Frijns J., Kirai P., Malombe J. and van Vliet B., 1997, "Pollution Control of Small-scale Metal Industries in Nairobi", Housing and Building Research Institute, Nairobi.
- Fisher E. and Reuber R., 2000, "Industrial Clusters and SME Promotion in Developing Countries, Commonwealth Secretariat, London
- Geheb K., 1997, "The Regulators and the Regulated: Fisheries Management, Options and Dynamics in Kenya's Lake Victoria Fishery", Ph.D. thesis, School of African and Asian Studies, University of Sussex.
- Haan H.C., 1995, "Informal Sector Associations in Africa", TOOLConsult Working Paper No. 1, TOOLConsult BV, Amsterdam.
- Harrison K., 1997, "Industrial Response to Globalization within a Medium-Sized Town: A Focus on the Clothing Manufacturing Sector in Port Shepstone", *Transformation*, vol. 32: 79–101
- Hart M., 1994, "Study to Profile Jua Kali Associations Relevant to the FIT Programme", Farm Implements and Tools (FIT), Nairobi.
- Horn G., undated, "The Eastern Cape Automotive Cluster: A key sector for regional economic growth and development", Mimeo.
- Howie C., 2003, "Can the Mauritian Textile Industry Weave a Successful Cluster?", The Competitiveness Institute
- Institute of Development Studies, 2004, "Small firm Clusters: working to reduce poverty", Policy Briefing
- Jansen E.G., 1996, "Rich Fisheries Poor Fisher Folk: The Effects of Trade and Aid in the Lake Victoria Fisheries", SUM WP No. 1996.7, University of Oslo, Centre for Development and Environment.
- Kaplan D., 2000, "Innovation, Technological Capability and Exporting: An Empirical Analysis of Small Manufacturing Firms in the South African Electronics Industry. Small Business Development Issues", report for Ntsika Enterprise Promotion Agency & Friedrich Ebert Stiftung.
- Kaplinsky R., 2001, "Learning Networks in the South African Auto Components Industry", *Innovation News*.
- Kaplinsky R. and J. Readman, 2000, "Globalization and Upgrading: What Can (and cannot) be Learned from International Trade Statistics in the Wood Furniture Sector?", mimeo, Centre for Research in Innovation Management, University of Brighton and Institute of development Studies, University of Sussex.
- Kinyanjui M.N., 1996, "Ziwani and Kigandaini Jua Kali Enterprise Clusters: Do Small Business

Gain by Being in Close Proximity to Each Other?", IDS Working Paper No. 508, Institute for Development Studies, Nairobi

- Kinyanjui M.N., 1997, "Tapping Opportunities in Enterprise Clusters in Kenya: The Case of Enterprises in Ziwani and Kigandaini", paper prepared for research project on Collective Efficiency and Small Enterprise in Kenya and presented at Institute of Development Studies, Sussex, UK and Institute for Development Studies, Nairobi
- Kinyanjui M.N., 1998, "Vehicle Repair Clusters in Kenya: Alternative Strategies for Slowly Industrialising Countries", report prepared for research project on Collective Efficiency and Small Enterprise in Kenya, Institute for Development Studies
- Kinyanjui M.N., 2000, "Tapping Opportunities in Jua Kali Enterprise Clusters: The Case of Ziwani and Kigandaini", IDS Working Paper No. 525, Institute for Development Studies, Nairobi
- Kristiansen S. and Mbwambo A., 2003, "Survival of Cottage Industries in Africa: The Case of Clustering and Social Networks in Tanzanian Garment Industries, *Journal of Contemporary African Studies*, Vol. 21, 365-382.
- Lorentzen J., Robbins G., Barnes J., 2004, "The Durban auto cluster: global competition, collective efficiency, and local development", mimeo.
- Lorentzen J., 2005, DaimlerChrysler South Africa, Human Capital Upgrading, and Regional Economic Development, paper submitted at the DRUID 10th Anniversary Conference.
- Machaka J. and Roberts S., 2004, "Manufacturing industry in Ekurhuleni: Analysis of recent performance and findings from firm survey". University of Witwatersrand and the Ekurhuleni Municipality.
- Majale M., M. Albu, S. Chirchir & J. Mutsotso, 2001, "Livelihoods around the Roofing Construction Sub-sector in Nakuru, Kenya", research report for DFID Research Centre Scheme, ITDG, Rugby UK.
- McCormick D., 1997, "Industrial District or Garment Ghetto? Nairobi's Mini-Manufacturers", in M.P van Dijk and R. Rabellotti, (eds), *Enterprise Clusters and Networks in Developing Countries*, London: Frank Cass
- McCormick D., 1998a, "Enterprise Clusters in Africa: From Collective Efficiency to Industrialisation", paper prepared for research project on Collective Efficiency and Small Enterprise in Kenya and presented at Institute of Development Studies, Sussex, UK and Institute for Development Studies, Nairobi
- McCormick D., 1998b, "Enterprise Cluster in Africa: On the way to Industrialisation?", IDS Discussion Paper 366, Institute of Development Studies, Sussex.
- McCormick D., 1999a, "African Enterprise Clusters and Industrialisation: Theory and Reality", *World Development*, Special Issue on Enterprise Clusters, Vol. 27(9): 1531-1551.
- McCormick D., 1999b, "Enterprise Clusters in Africa: Paving the Way to Industrialization", in Marco di Tommaso and Roberta Rabellotti (eds), *Cluster di imprese nei paesi in via sviluppo: oltre l'esperienza italiana.* Bologna: Il Mulino, 1999.
- McCormick D., 2001a, "Kenya's Garment Industry: An Institutional View of Medium and Large Firms." IDS Working Paper No. 531, Institute for Development Studies, Nairobi.
- McCormick D., 2001b, "Value Chains and the Business System: Applying a Simplified Model to Kenya's Garment Industry", *IDS Bulletin*, vol. 32 (3):105-115.
- McCormick D., 2002a, "African Enterprise Clusters and Industrialisation: An Overview", paper presented at *Systemes Agroalimentaires Localises*, Montpellier France, 16-18 October.
- McCormick D., 2004a, "Upgrading MSE Clusters: Theoretical Frameworks and Practical Approaches for African Industrialisation", paper presented at a conference on "Innovative

Systems and Innovative Clusters in Africa", organized by the Prospective College of Engineering and Technology, University of Dar es Salaam, Bagamoyo, Tanzania, 18-20 February 2004.

- McCormick D., 2004b, "University Involvement in Upgrading Entrepreneurial Networks: The Case of Nairobi's Small Clothing and Footwear Producers", paper presented at the 3rd Annual Scientific Conference organized by the Tropical Institute of Community Health and Development in Collaboration with UNI-SOL/UNESCO, Kisumu, Kenya, 29 April – 2 May 2004.
- McCormick D. and Atieno R., 1998, "Linkages Between Small and Large Firms In the Kenyan Food Processing and Tourism Industries', paper presented at a workshop organized by the European Association of Development Institutes Working Group on Industrialisation Strategies at the Institute of Social Studies, The Hague, Netherlands, September 1998.
- McCormick D. and Atieno R., 2002, "Linkages between Small and Large Firms in the Kenyan Food Processing Sector": Importance for Industrial Structure and Performance", in Meine Pieter van Dijk and Henry Sandee (eds.), *Innovation and Small Enterprises in the Third World,* pp. 223-248. Cheltenham: Edward Elgar, 2002.
- McCormick D., Kimuyu P. and Kinyanjui M.N., 2001, "Enterprise Clusters in Kenya: Urban Production, Upgrading Strategies, and Joint Action", *Africa Insight*, vol. 31 (1): 3-11.
- McCormick D., Kimuyu P. and Kinyanjui, M.N, 2002, "Can Micro-Enterprises Export?", paper presented at international conference on Business Systems in Africa: Institutions in Industry and Agriculture, Mombasa, Kenya.
- McCormick D. and Kinyanjui M.N., 2002, "E-commerce in the Garment Industry in Kenya: Usage, Obstacles and Policies", research Report for Globalisation and Poverty Programme, Institute of Development Studies and London School of Economics and Political Science, UK.
- McCormick D., Kinyanjui M.N. and Mitullah W.V., 1995, "Collective Efficiency and Small Enterprise in Kenya: A Proposal to Study the Vehicle Repair and Fish Processing Industries", IDS Working Paper No. 503, Institute for Development Studies, Nairobi
- McCormick D., Kinyanjui M.N and Mitullah W., 1996, "Small Enterprise Clusters: Fishing and Vehicle Repair in Kenya", paper prepared for research project on Collective Efficiency and Small Enterprise in Kenya and presented at Institute of Development Studies, Sussex, UK and Institute for Development Studies, Nairobi.
- McCormick D., Kinyanjui M.N. and Ligulu P., 2002, "The Clothing and Footwear Industries in Kenya", paper presented at an international conference on Clothing and Footwear in African Industrialisation: Building an African Research Network, Mombasa, Kenya.
- McCormick D., Kinyanjui M.N. and Ongile G., 1997, "Growth and Barriers to Growth Among Nairobi's Small and Medium-Sized Garment Producers", *World Development*, vol. 25 (7): 1095–1110
- McCormick D. and Mitula W., 2002, "Institutional Response to Global Perch Markets: The Case of Lake Victoria Fish Cluster", paper presented at a conference on Local Agri-Food Systems: Products, Enterprises, and Local Dynamics, organized by the Groupement d'intérêt scientifique systems agro-alimentaires, Montpellier, France, 16-18 October 2002.
- McCormick D. and Muguku C., 2003, "Labour and the Paradox of Flexibility: The Case of Micro and Small Garment and Metal Enterprises in Nairobi", paper presented at Mzumbe University/Adger University College International Conference on Research for Development, Dar es Salaam, Tanzania, 26-28 February 2003.
- McCormick D. and Rogerson C.M. (editors), 2004, *Clothing and Footwear in African Industrialisation*, Africa Institute of South Africa, Johannesburg.
- McCormick D. and Oyeyinka B., in preparation, *Clusters in Africa: Pattern, Practice and*

Policy for Innovation.

- Meagher K., 2001, "Economic miracle or Aba-Made development? Civil Society and Informal Scale Manufacturing in South-Eastern Nigeria", Final report for the CRD Research Network on Informalization and Civil Society in Nigeria.
- Meyer-Stamer J., 2003, "The Hexagon of Local Economic Development and LED in South Africa", Mesopartner working paper 05/2003, Duisburg.
- Mitullah W.V., 1996, "Collective Efficiency in the Fish Industry: Lessons from Uhanya Beach Census", IDS Working Paper No. 509, Institute for Development Studies, Nairobi.
- Mitullah, W.V., 1997, "Firm Interactions in Uhanya Cluster: The Dynamics of Small-scale Fish Processing", paper prepared for research project on Collective Efficiency and Small Enterprise in Kenya and presented at Institute of Development Studies, Sussex, UK and Institute for Development Studies, University of Nairobi, Nairobi
- Mitullah W.V., 1998, "Fishing and Processing Cluster in Lake Victoria", paper prepared for research project on Collective Efficiency and Small Enterprise in Kenya and presented at Institute of Development Studies, Sussex, UK and Institute for Development Studies, University of Nairobi, Nairobi
- Mitullah W. V., 1999, "Lake Victoria's Nile Perch Fish Cluster: Institutions, Politics and Joint Action", IDS Working Paper 87, Institute of Development Studies, Sussex.
- Morris M., Robbins G., Barnes J., 2004, "What Should Be The Role Of Government In Fostering Clusters?", paper presented at *50th Anniversary Conference Reviewing the First Decade of Development and Democracy In South Africa*, Durban.
- Morris M., Barnes J., 2004, "Policy Lessons In Organising Cooperation And Facilitating Networked Learning In Value Chains And Industrial Clusters", mimeo.
- Morris M., Bessant J., Barnes J., 2004, "Using learning networks to enable industrial development: Case studies from South Africa ",mimeo
- Morris M., Robbins G., 2004 "The role of government in creating an enabling environment for inter-firm cluster co-operation: Policy lessons from South Africa", in McCormick D., Oyelaran-Oyeyinka B., eds., *Clusters in Africa: Pattern Practices and Policies for Innovation and Upgrading*, INTECH.
- Nakizito J. and Darkoh M. B. K., "Developing Countries and Incipient Industrialization: A Case Study of Enterprise Clustering and Inter-firm Relations in Small and Medium-scale Manufacturing Industries in Lobatse, Botswana", *Journal of Social Development in Africa*, Vol. 17
- Nel H. and Makuwaza G.C., 2001, "Clustering as a Policy Strategy for Improving Manufacturing Performance and Economic Growth in South Africa: A case Study of the Motor Industry in the Eastern Cape"; paper presented at the South African Economic Society Conference in Muldersdrift, September.
- Ngau P.M., 1995, "A Sub-sector study of traders servicing MSE Meta workers in Kenya: A case study of Kisumu and Vihiga Districts", Final Report for the FIT Programme, ILO.
- Nketiah S.N., Bonsu-Atakora S. and A. Brew-Hammond, 2001, "Ghana sawmill energy efficiency study", final report for the Kumasi Institute of Technology and Environment (KITE).
- Nyaki Adeya C., 2003, "Sources of Training in African Clusters and Awareness of ICTs: A study of Kenya and Ghana", Discussion Paper, United Nations University and Institute for New Technologies.
- October L., 1996, "Sectors, Clusters and Regions: A Study of the Cape Clothing Industry", Working Paper No. 2, Capetown: University of Cape Town, Development Policy Research Unit
- Ongile G. and McCormick D., 1996, "Barriers to Small Firm Growth: Evidence from Nairobi's

Garment Industry", in D. McCormick and P.O. Pedersen, (eds), *Small Enterprises: Flexibility and Networking in an African Context*, Nairobi: Longhorn, 1996

- Osinachi Uzor O., 2004, "Small and medium Scale Enterprise Cluster Development in South-Eastern Region of Nigeria", Universitaet Bremen, Paper no. 86
- Oyelaran-Oyeyinka B., 1997, *Nnewi: An Emergent Industrial Cluster in Nigeria*, Ibadan: Technopol Publishers.
- Oyelaran-Oyeyinka B., 2001, "Networks and Linkages in African Manufacturing Cluster: A Nigerian Case Study", the United Nations University, Discussion paper series #2001-5, Helsinki.
- Oyelaran-Oyeyinka B., undated, "Learning To Collaborate Under the New Competition: SME Footwear Clusters in Nigeria".
- Oyelaran-Oyeyinka B., Kaushalesh L., Nyaki Adeya C., 2005, "Institutional Support for Collective ICT Learning: Cluster Development in Kenya and Ghana".
- Oyelaran-Oyeyinka B., 2004, "Networking Technical Change and Industrialization: The case of Small and Medium Firms in Nigeria", African Technology Policy Studies Network, Special Paper Series no. 20.
- Pedersen P.O., 1993, "Clothing Rural Zimbabwe: Sectoral Strategies and Local Development", CDR Working Paper 93.7, Copenhagen: Centre for Development Research.
- Phele T., Roberts S., Steuart I., 2005 "Sub-sectorial analysis of the South African Foundry Industry", School of Economic and Business Sciences, University of the Witwatersrand.
- Porter M.E., 2000, "Location, Competition and Economic Development: Local Clusters in a Global Economy", Economic Development Quarterly, Vol. 14 No.1.
- Rabellotti R., 2003, "SMEs in Africa: the role of business development services", speech at the conference Milano con l'Africa, Milano, 2003.
- Sverrisson A., 1992, "Innovation as a Collective Enterprise: A Case Study of Carpenters in Nakuru, Kenya", Research Policy Studies, Discussion Paper No. 189, Lund: University of Lund, Research Policy Institute
- The Cluster Consortium – Strategy in Action, 1999, *The South African Tourism Cluster*.
- University of Witwatersrand, 2005, Cluster Initiative for the Mining Equipment manufacturing Industry in South Africa.
- Uzor O.O., 2004, "Small and Medium Scale Enterprises Cluster Development in South-Eastern Region of Nigeria", IWIM - Institute for World Economics and International Management, Berichte aus dem Weltwirtschaftlichen Colloquium der Universität Bremen, Nr. 86.
- Ward S. and Gilber S., 2001, "Livelihhods among the Anloga Carpentry Cluster in Kumasi, Ghana", report from the Intermediate Technology Development Group.
- Wilkens N. and Kane K., 1997, "SME Linkages and Industrial Clustering in South Africa", paper presented at conference on African Business Systems: Institutionalising Industrialisation in the Era of Economic Reform, Mombasa, Kenya
- Yaw Obeng G., 2002, "Kumasi Suame Magazine", Mimeo, Kwame Nkrumah University of Science and Technology.

Studies on Enterprise Clusters and Networks in Other Developing/Emerging Countries

- Albaladejo M., 2001, "The Determinants of Competitiveness in SME Clusters: Evidence and Policies for Latin America", in H. Katrack and R. Strange (eds.), *Small-Scale Enterprises in*

Developing and Transitional Economies, London: Macmillan.

- Altenburg T. and J. Meyer Stamer, 1999, "How to Promote Clusters: Policy Experiences from Latin America", *World Development*, Vol.27 (9), 1693-1713.
- Artola N. and D. Parrilla, 2003, "El despegue del cluster de productos lácteos de Boaco y Chontales", Agorà 2000 mimeo for IDB.
- Bair J. and G. Gereffi, 2001, "Local Clusters in Global Chains: the Causes and Consequences of Export Dynamism in Torreon's Blue Jeans Industry", *World Development*, Vol. 29 (11).
- Bazan L. and L. Navas-Aleman, 2003, "The Underground Revolution in the Sinos Valley: A Comparison of Upgrading in Global and National Value Chain", paper for the workshop 'Local Upgrading in Global Chains' held at the Institute of Development Studies, University of Sussex, 14-17 February 2001.
- Bercovich N., and C. Swanke, 2003, "Cooperacao e competitividade na industria de software de Blumenau", WP. 138, Serie Desarrollo Productivo. Santiago, Chile: ECLAC/United Nations.
- Bernardes R. and M. Pinho, 2002, "Aglomeração e aprendizado na rede de fornecedores locais da Embraer", mimeo.
- Calandro M.L. and H.S. Campos, 2002, "O setor de autopeças de Caixas do Sul e Regiao: diagnostico para a implementaçao de politica de apoio ao desenvolvimento de SLPs". In C. C. Chiappino (ed.), *Programa de Apoio aos Sistemas Locais de Produçao: a construçao de uma politica publics do RS*, Porto Alegre: Fundaçao de Economia e Estatistica.
- Campos et al., 1998, "Sistemas locais de inovacao : um estudo preliminar de casos selecionados ni estado de Santa Catarina", NT. 10, IE/UFRJ.
- Campos et al., 2000, "Arranjo productivo textil-vestuario do Vale de Itajai", SC. NT. 20, IE/UFRJ.
- Carrillo J. and A. Hualde, 1996, "Maquiladoras de tercera generacièon. El caso de Delphi-General Motors", *Espacios*, Vol. 17 (3).
- Cassiolato J., A. Villaschi and H. Lastres, 2003, "Local Productive and Innovative Systems in Brazil: A Policy Perspective from a Study of the Metal-mechanics System in Espírito Santo", Agorà 2000 mimeo for IDB.
- Conlin M.V., 1996, "Revitalising Bermuda: tourism policy planning in a modular island destination", in Hanson and Husbands (eds), *Practising Responsible Tourism: International Case Studies in Tourism Planning, Policy and Development*, New York: John Wiley and Sons, 1996.
- Dulbecco P. and Vagneron I., 1999, "District industriel et gestion du changement économique : le cas de la sous-traitance textile en Thaïlande", paper presented to the ASRDLF workshop on Innovation et économie régionale, Hyères : 1-3 September 1999.
- Fawzy S., 2002, "Globalization and Firm Competitiveness in the Middle East and North Africa Region", report prepared in conjunction by the World Bank, Mediterranean Development Forum and Egyptian Center for Economic Studies.
- Gereffi G., 1999, "International Trade and Industrial Upgrading in the Apparel Commodity Chain", *Journal of International Economics*, Vol. 48: 37-70.
- Giuliani E., C. Pietrobelli and R. Rabellotti, 2003, "Upgrading in Global Value Chains: Lessons from Latin American Clusters", Agorà 2000 mimeo for the IDB.
- Gomes R., 2003, "Upgrading Without Exclusion: Lessons from SMEs in Fresh Fruit Clusters in Brazil", Agorà 2000 mimeo for the IDB.
- Humphrey J., 2002, "Opportunities for SMEs in Developing Countries to Upgrade in a Global

Economy", SEED Working Paper, Geneva: ILO.

- Kathuria V., 1999, "Role of Externalities in Inducing Technical Change: A Case Study of the Indian Machine Tool Industry", *Technological Forecasting and Social Change*, Vol. 61: 25-44.
- Kennedy L., "Cooperating for Survival: Tannery Pollution and Joint Action in the Palar Valley (India)", *World Development*, Vol. 27: 1673-91.
- Maggi C., 2003, "El cluster del cultivo y procesamiento del salmón en la región sur-austral de Chile", Agorà 2000 mimeo for IDB.
- Meyer-Stamer J., 1998, "Clustering, Systemic Competitiveness and Commodity Chaines: How Firms, Business Associations and Government in Santa Catarina (Brazil) Respond to Globalization", paper prepared for the International Workshop on Global Production and Local Jobs: New Perspectives on Enterprises, Networks, Employment and Local Development Policy, Geneva: ILO, 9-10 March.
- Meyer-Stamer J., 2000, "Regional clusters and enterprise development: The case of Santa Catarina, Brazil", in United Nations Conference on Trade and Development, *Development Strategie and Support Services for SMEs: Proceedings of Four Intergovernmental Expert Meetings*, New York, Geneva: United Nations, pp. 203-206.
- Meyer-Stamer J., Harmes-Liedtke U., 2005, "How to Promote Clusters?", A Mesopartner report for the Inter-American Development Bank.
- Mytelka Lynn and Farinelli F., 2000, "Local Clusters, Innovation Systems and Sustained Competitiveness", paper presented at United Nations University, Institute of New Technologies.
- Nadvi K., 1998a, "International Competitiveness and Small Firm Clusters – Evidence from Pakistan", *Small Enterprise Development*, March 1998.
- Nadvi K., 1998b, "Knowing Me, Knowing You: Social Networks in the Surgical Instrument Cluster of Sialkot, Pakistan", IDS Discussion Paper 364, Institute of Development Studies, Sussex.
- Nadvi K. and H. Schmitz, 1994, "Industrial Clusters in Less Developed Countries: Review of Experiences and Research Agenda", IDS Discussion Paper 339, Institute of Development Studies, Sussex.
- Nadvi K. and H. Schmitz (eds), 1999, Industrial Clusters in Developing Countries. Special Issue of *World Development*, Vol. 27 (9).
- Neven D. and L.M.Droge C., undated, "A Diamond for the poor?Assessing Porter's Diamond Model for the Analysis of Agro-food Clusters in the Developing Countries", Michigan State University.
- Rabellotti R., 2002, "The dynamics of the footwear sector in four Latin American countries: Argentina, Brazil, Chile and Mexico", Quaderni del Dipartimento, no.27, Dipartimento di Economia Istituzioni Territorio: Università di Ferrara.
- Rabellotti R., Giuliani E. and Pietrobelli C., 2004, "Upgrading in global value chains: lessons from Latin America clusters", Quaderni del Dipartimento, n. 72, February, Dipartimento di Scienze Economiche e Metodi Quantitativi, Novara: Università del Piemonte Orientale.
- Ruiz Duran C., 2003, "Cadenas de valor y clusters del software en México", Agorà 2000 mimeo for IDB.
- Van Der Linde C., 2002, "Findings from the Clustre Meta-Study", Harvard Business School.
- Voyer R., 1997, "Emerging High-Technology Industrial Clusters in Brazil, India, Malaysia and South Africa", paper for the International Development Research Center, Ottawa
- Wignaraja G., 2003, "promoting SME Exports from Developing Countries", Maxwell Stamp PLC mimeo for OECD.

Publications of International Organizations and Project Documents

- Angelelli P. and J. J. Llisterri, 2002, *Guía operativa para programas de competitividad para la pequeña y mediana impresa*. Best Practices Series, Sustainable Development Department. Washington D.C.: Inter-American Development Bank.
- Ceglie G. and M. Dini, 2000, "SME Clusters and Network Development in Developing Countries: The Experience of UNIDO", working paper, PSD Technical Working Papers Series, Vienna.
- CDE, 2005, "Programme 2005 - PS/ / /V – Tourism Development – TAN (Zanzibar, Tanzania)", Bruxelles.
- CDE, 2005, "Rapport Final MAD/0406/00TC Text'ile Mada", Bruxelles.
- CDE, 2005, "Stratégie CDE pour l'aquaculture d'eau douce en Afrique continentale", draft, Bruxelles.
- CDE, undated, "Program WAF/0216/FI Guinée Conakry, Mauritanie, Cap Vert", draft, Bruxelles.
- CDE/PRO€INVEST, 2004, "Leather Programme for Eastern and Southern Africa: Targeted Support Programme for Small and Medium Sized Enterprise (SME) Development in the Leather Sector", Bruxelles.
- CFC-UNIDO "A blueprint for the African leather industry" CFC technical paper n.30.
- DFID, 2000, "Wood Industry Study 2000", final report, DFID Office in Ghana.
- European Commission, DG REGIO, 2002, "Creating smart systems. A guide to cluster strategies in less favored regions", Bruxelles.
- European Commission, undated, Final Report of the Expert Group on Enterprise Clusters and Networks, Bruxelles.
- IFC, 2005, Technical Assistance and Advisory Projects, Annex to the 2005 Annual Report, Washington, DC.
- ILO - Committee of Donor Agencies for Small Enterprise Development, 1997, *Business Development Services for SMEs: Preliminary Guideline for Donor-Funded Interventions*, Geneva.
- ILO - Committee of Donor Agencies for Small Enterprise Development, 2001, "Business Development Services for Small Enterprises: Guiding Principles for Donor Intervention", mimeo, February.
- Inter-American Development Bank, 2002, *Evaluación de la acción del Banco y la estrategia para la pequeña y mediana empresa (1990-2000)*, OVE, RE-273, Washington DC.
- Inter-American Development Bank, 2003, *Report on Competitiveness Promotion in Colombia and El Salvador*, July.
- Kaplinsky R. and Readman J., 2001, "Integrating SMEs in Global Value Chains, Towards Partnership for Development", report for UNIDO ,Vienna.
- Hansen E. - Economic Transformations Group Inc., 2003, "Clustering, Innovation, and Regional Development: What Works!, Lessons from Successful Clustering Project Implementation", background paper for the UNIDO Workshop on Cluster-Based Economic Development.
- Humphrey J. and Schmitz H., 1995, "Principles for Promoting Clusters & Networks of SME", paper commissioned by the UNIDO Small and Medium Enterprises Branch
- Lehtonen R., 2002, "Towards a Cluster Model for Finnish Development Cooperation in South

Africa", Finland – South Africa Association, Working Paper, Helsinki.

- Nadvi K., 1995, "Industrial Clusters and Networks: Case Studies of SME Growth and Innovation", case studies prepared for the Small and Medium Industries Branch, UNIDO, Vienna.
- Nadvi K. and H. Schmitz, 1997, "SME responses to global challenges: Case studies of private and public initiatives", paper presented at the Seminar on New Trends and Challenges in Industrial Policy, UNIDO, Vienna.
- Nadvi K. and S. Barrientos, 2004, *Industrial Clusters and Poverty Reduction*, UNIDO, Vienna.
- Pietrobelli C. and Rabellotti R., 2004, *Upgrading in Clusters and Value Chains in Latin America - The Role of Policies*, Inter-American Development Bank, Washington.
- Rabellotti R., 1998, "Helping small firms to network – the experience of UNIDO", *Small Enterprise Development,* no.1 March, 25-34
- Russo F., 1999, "Strengthening Indian SME Clusters: UNIDO's Experience", Case study, Project US/GLO/ 95/144 UNIDO, Vienna
- Russo F., Clara M. and Gulati M., 2000, "Cluster Development and Promotion of Business Development Services (BDS): UNIDO's Experience in India", working paper, PSD Technical Working Papers Series, Vienna
- UNCTAD, 1998, "Promoting and Sustaining SMEs Clusters and Networks for Development, Paper prepared for an Expert Meeting on Clustering and Networking for SME Development", Geneva, 2-4 September, TD/B/COM.3/EM.5/2.
- UNCTAD, 2002, *Partnership and Networking in Science and Technology for Development*, Technology for Development Series, Geneva.
- UNIDO, 2001, *Development of Clusters and Networks for SMEs: The UNIDO Programme*, Private Sector Development Branch, Investment Promotion and Institutional Capacity Building Division, Vienna
- UNIDO et al, 2001, "Tanzania: Sustainable Industrial Development and Competitiveness", paper prepared in conjunction with the Ministry of Industry and Trade, Tanzania Private Sector Foundation, and the Confederation of Tanzania Industries.
- UNIDO, 2002, "Programs to strengthen the leather sector in Uganda", mission report prepared by R. Temsch and M. Marchich.
- UNIDO, 2002, *Cluster and network development: monitoring and evaluation issues*, report of an Expert and Group meeting, New Delhi 9-14 of December.
- UNIDO, 2002, Technical Report to the Government of Nigeria – Footwear Industry, mission report by T. McCallin.
- UNIDO, 2003, Technical Report to the Government of Nigeria – Shoe Industry, mission report by J. Berg.
- UNIDO, 2003, *A path out of poverty, Developing rural and women entrepreneurship*, Vienna.
- UNIDO, 2003, *Development of clusters and networks of SMEs: The UNIDO programme, a guide to export consortia*, Vienna.
- UNIDO, 2003, *Understand Kenya's Competitive Position: Research Study into the tannery and garment sector*, mimeo.
- UNIDO - Cooperazione Italiana, undated, *Mode et Cuira Fes/Fashion and Leather in Fes*, Vienna.
- UNIDO - Cooperazione Italiana, 2003, *L'artisanat au Maroc, un gisement inexploité*, Vienna.
- UNIDO, 2004, Supporting underperforming SME Clusters in Developing Countries, prepared for the Second OECD Ministerial Conference on SME.

- UNIDO, 2004, *Kenyan Bechmarking Study: Leather Processing and Garments Sub-sectors*, Mimeo.
- UNIDO-IFC-APDF, undated, *Directory of BDS Providers in Eastern Nigeria.*
- UNIDO-IFC/SME Department – APDF, 2004, "Cluster Development Project in Eastern Nigeria" (Abia and Anambra States), Project number: XX/NIR/04/XXX.
- USAID, 2003, "Promoting Competitiveness in Practice - An Assessment of Cluster-Based Approaches", report prepared by The Mitchell Group, Washington, DC.
- Walker B., 2004, "The JHTA destination marketing programme – the force for sustainable development in Portland", speech by the Chair of JHTA Port Antonio.
- World Bank, 1998, "A framework for support to the development of Micro, Small Enterprise and Rural Finance in Sub-Saharan Africa", Private Sector Finance Group, Washington, DC.
- World Bank, 2004, "Support for Economic Expansion and Diversification", Project Appraisal Document, Washington, DC.
- Yehoue B. Etienne, 2005, "Clusters as a Driving Engine for FDI", IMF Working Papers, WP/05/193, Washington, DC

Economisti Associati
Via Rialto 9
40124 Bologna
ITALY

Phone **+39 051 6569606**
Fax **+39 051 6486838**
E-mail **main@economistiassociati.com**