



Implementation refers to the management and execution of the activities described in the action plan(s).

As we previously discussed, the CDA does not engage in direct service provision or resource disbursement to cluster stakeholders (such as, for example, the building of facilities or infrastructure, the provision of equipment or the marketing of cluster products). The CDA's role is, rather, that of a change agent who plays a catalytic role in at least four possible different ways:

- raising awareness among cluster stakeholders on the potential benefits of developing a shared vision and action plans;
- brokering business linkages and facilitating the mobilization of resources for the financing of joint endeavors;
- bridging coordination gaps between demand and offer for services and building the capacity of local institutions to cater demand
- enhancing the skills of cluster stakeholders.

1. Raising awareness among cluster stakeholders

Awareness-raising is a key element of the trust-building process. Consequently, at the outset of the intervention, most of the activities undertaken will pursue this objective. Awareness raising activities can be broadly grouped into two types of activities: i) activities aimed at informing and involving stakeholder and ii) activities aimed at disseminating specialized knowledge.

Keeping cluster actors informed about progress and achievements of the initiative helps promote trust and a sense of ownership among stakeholders. It also facilitates a dialogue about potential joint actions that stakeholders could undertake. Activities aimed at informing and involving stakeholders include:



- enterprise visits and door-to-door information dissemination;
- · broad-based information-dissemination events, such as round tables, fairs, distribution of newsletters, etc.
- workshops on cluster development with the participation of local policy makers and institutions;
- study tours and exposure visits to related but more advanced clusters;
- visits of cluster enterprises to support institutions; and
- publication of newspapers' articles and production of TV clips.

Awareness raising activities should not be confined to showcasing events but, wherever possible, should also produce tangible results that nurture the motivation of cluster stakeholders. Activities oriented to disseminate specialized knowledge include:

- organizing inter-enterprise learning events;
- helping cluster enterprises participate in trade fairs and exhibitions;
- organizing workshops and seminars with the participation of experts in areas such as technology and quality improvement, market access, etc;
- · organizing visits of buyers to the cluster; and
- facilitating cluster twinning initiatives.

2. Brokering business linkages

Creating and strengthening networks among cluster enterprises is one of the core functions of a CDA.Business networks involve linkages between a number of enterprises for the achievement of a joint objective that generates tangible benefits. Business networks take different forms, depending on the nature of the network, these include:

- *horizontal* networks involving enterprises occupying the same value chain segment. These tend to sustain collaborative endeavours over time;
- *vertical* networks based on buyer-supplier relationships. These often involve repeated interactions among participants in subcontracting agreements; and
- ad hoc agreements on time-bound business projects (e.g. joint purchase of equipment).

Horizontal linkages allow producers to learn from each other, to reap the benefits of scale economies and to improve their negotiating power vis-à-vis actors situated both backwards and forwards on the supply chain. Network development starts with the identification of joint business interests among potential partner enterprises and leads to the agreement of joint activities. Initially, nnetworks may function with a low degree of formalization, but over time and as the level of cooperation increases, more formal agreements are struck that may involve the adoption of an internal statute and perhaps even the establishment of a shared fund for the network.

Vertical linkages are relationships - both backwards and forwards - between enterprises located at different levels of a value chain. The most immediate benefit of vertical networking for the suppliers is an increase in sales volumes. It may, however, also facilitate enhanced access to new technology, information and new markets as well as a reliable and customized input supply. Large buying enterprises also enjoy considerable benefits from the relationship, including increased flexibility of operations and reduced need for product stocking and risky investments.



Vertical linkages can be initiated by the large-scale buyer choosing individual suppliers to partner with. Alternatively, they can start with the establishment of horizontal networks among the suppliers selling to a single buyer, which then jointly enter into an agreement with the client. Finally, they could be facilitated by an intermediary enterprise (such as a storehouse) that assumes responsibility for managing the requests of both parties.

Box 1: Brokering linkages in clusters – An illustration based on UNIDO experiences in Senegal and Ethiopia

Cluster development in Senegal. The core of the UNIDO cluster development programme in Senegal (PAPES) was the promotion of horizontal networks of enterprises. At the implementation phase, it became clear that the structure of the networks was too weak to permit the efficient management of joint projects. With the support of the CDA, the member enterprises agreed on a series of activities aimed at strengthening the cohesion of the groups and promoting their formalization. This involved, first, setting up an administrative structure for each network and designating a directing body. The groups then moved on to formulate an internal statute defining responsibilities and sanctions. Finally, the CDA assisted the networks in the choice of a suitable legal form. Two thirds of the selected networks have already completed the formalization and registration process.

The Addis Ababa Garment Cluster in Ethiopia. Market access was a pressing issue for both small-scale and large-scale producers in the Addis Ababa garment cluster, Ethiopia. Most enterprises produce for the local markets, which include wholesalers, retail shops, government institutions and individual consumers. The diagnostic study conducted prior to the intervention pointed out that most of the enterprises in the cluster were facing problems in getting constant work orders. This, coupled with low capacity in product development, limited product promotion, and trade fair participation, affected the marketing potential of the cluster firms.

Consequently, the project facilitated the establishment of linkages between larger enterprises and foreign contractors, on the one hand, and between SMEs and large enterprises and buyers, on the other hand.

In the case of large-scale producers, the UNIDO CDA facilitated direct linkage with Klowt Africa, a foreign contractor. KA entered sub-contract agreements with two enterprises (MAA Garment and Knit to Finish) in the cluster. The company placed orders for sportswear and polo shirts, with a total value of USD \$ 367,500. It was further indicated that the company planned to expand its subcontractor base, as there were to be more orders for the cluster. In fact, when an order is placed to the company, it distributes the orders to enterprises on the basis of certain criteria such as production capacity, past performance records, etc. Given that the two enterprises met delivery deadlines and quality standards, further and larger orders have since been received.

In the case of smaller firms, linkages were established with large, export oriented enterprises and/or local contractors. Sub-contract arrangements have resulted in increased production and product ranges, reduced product rejection rates, increased orders, and increased average incomes. It has also resulted in increased employment opportunities in the cluster.



3. Bridging gaps and building capacities

A feature of high-performing clusters is the presence of institutions that effectively provide specialized support to the cluster, as well as those the services required to foster and sustain the process of cluster development (R&D, utilities, basic services, etc.)

In underperforming clusters, infrastructure and basic services are often dilapidated or absent, while support services tend to be limited in quality and quality. Service providers tend to focus on larger enterprises and have limited awareness of – or indeed interest in – serving SMEs. So, even where services do exist, these are often not tailored to the needs of SMEs. The best way to address such a mismatch is by increasing communication between economic actors – in this case, service providers and SMEs – within the cluster.

The role of the CDA in this context is not direct service provision but rather promoting the development of a competitive service market. A first step in facilitating the strengthening of service markets lies in creating awareness among users and suppliers. This is most effectively undertaken when set in the context of tangible potential business opportunities. Consequently, the CDA should attempt to draw the link between potential market openings and enhanced service provision. While at the outset the implementing agency can co-finance service provision in order to generate a visible impact and produce a demonstration effect, the CDA will progressively encourage client enterprise to bear the full costs.

Box 2: Bridging coordination gaps and building capacities in clusters— An illustration based on UNIDO experiences in India

Demand-led provision of training in the skill development centre of Ludhiana, India. A number of technical support institutions were present in the hosiery cluster of Ludhiana. However, they had no interaction with the industry and could not match the skill needs of the cluster. In a major departure from past practices of supply-pushed education, a network of exporters (APPEAL) took the initiative and created a committee that listed the various mistakes committed by workers leading to productivity loss or product rejection. Based on this information, five training modules were identified as being necessary. These included industrial stitching and tailoring, linking, cutting and pattern making, designing and merchandising and overall supervisory skills.

The Government Polytechnic for Women (GPW), an existing technical institution, was entrusted with the design and delivery of these training packages. APPEAL and GPW obtained support from the All India Council for Technical Education (AICTE) to create a skill development centre in the GPW premises for a total investment of US\$16,000. Ongoing interactions with the exporters ensured that new industry demands were met regarding the types of modules, sustainability, and spread of information across the industry. The better match between skill demand and offer was reflected in the higher uptake of GPW students in the local industry. Finally, the success of the programme has laid the foundations for the establishment of a full-fledged design centre within GPW.



4. Enhancing skills

The effectiveness of joint actions among cluster stakeholders depends on the strength and quality of the business networks and on the capacities and skills of the member enterprises. Skills enhancement is thus a key element of cluster initiatives.

In the UNIDO methodology, the focus is on enhancement of skills that are relevant to production activities both for entrepreneurs (business management, financial planning, marketing, IT, accounting and so on) and for the workforce (technical skills, computer literacy, etc). Skills development can be promoted through on-the-job training; workshops and seminars; and study tours

In many cases, the provision of appropriate skills enhancement services requires coordination of efforts between the public and private sectors. The task here is to promote a better match between the skills and capacities that the education system and training organizations provide and what is required by the local labour market. The CDA seeks to play a coordinating function, promoting collaboration between the different stakeholders involved. Specifically, s/he seeks to facilitate:

- the creation of apprenticeship schemes that allow trainees to acquire hands-on experience during their studies;
- the redesign of curricula and, if necessary, the retraining of trainers based on the feedback provided by cluster enterprises,, an appropriate integration of theoretical and practical skills in training programmes;
- the introduction of lifelong learning schemes with the collaboration of enterprises and educational institutions that includes on-the-job and external training for managers and workers; and
- the establishment of cluster-based skills-development centres. These can provide targeted training to the local workforce as well as to unskilled people to create a specialized labour pool.



Box 3: Enhancing skills in clusters - An illustration based on UNIDO experience in India

The introduction of IT in the cluster of Ludhiana, India. The adoption of Information Technology (IT) in the hosiery cluster of Ludhiana, India, was limited, while Internet access was prohibitively expensive. To increase the use of IT services, UNIDO organized a workshop in Ludhiana where a well-known IT consultant from New Delhi introduced the principles of electronic mail, web browsing and e-commerce to the cluster entrepreneurs. Thereafter, all responsibilities have been transferred to the Ludhiana partner institution, Knitwear Development Group (KNIDGRO). In April 1998, UNIDO co-financed the participation of the Director of KNIDGRO in an ad hoc training course on IT. A series of awareness-building initiatives and training courses were organized by KNIDGRO, in which over 30 Ludhiana enterprises took part. A request from KNIDGRO led to the local availability of access to Internet, thus drastically reducing Internet connection costs. Subsequently, KNIDGRO embarked on the ambitious attempt to bridge the gap between the cluster entrepreneurs and the local providers of IT-related services. KNIDGRO contacted the local IT-related service providers with a request for greater customization in line with the expectation and capacities of SMEs. Thanks to the expertise acquired at the New Delhi training course and the in-depth knowledge about its association's members, the Director of KNIDGRO was able to devise a suitable syllabus and put it forward to all the training institutions operating in Ludhiana. Having identified the one institution providing the best offer in terms of facilities, quality, and price, and with the full endorsement of its members, KNIDGRO signed a contract on behalf of its members.

A very similar strategy was implemented the following month, when a dozen KNIDGRO members came up with a request for an on-line outlet site for e-commerce. Once again, KNIDGRO brokered a deal with the most experienced Internet provider in Ludhiana. As a result of this initiative (with a duration of about 1 years), the use of IT in the Ludhiana cluster has increased significantly. In particular, there has been a spectacular increase in the use of e-mail (as an instrument for entrepreneurs to get in touch with each other, to share ideas and projects, and to identify and implement new and more ambitious action plans) and of Internet (as a source of information and a marketing opportunity through e-commerce). IT penetration in the textile industry appears to be higher than in Ludhiana than elsewhere in the local industry.

Source: UNIDO (2002), Cluster Development and the Promotion of Business Development Services (BDS), UNIDO experience in India.



5. The pro-poor angle in the implementation phase

Without conscious efforts to include them, there is a danger of cluster stakeholders who are poor or vulnerable to poverty being excluded from the benefits of cluster development activities. This is mostly due to their lack of representation in key forums and their relatively weak capabilities, which constrain their employability and productivity.

Broadly speaking the following stakeholder categories are often found among poor entrepreneurs within clusters: i) women and youth; ii) ethnic, linguistic and religious minorities; iii) socially marginalized groups, such as people belonging to lower castes in India; iv) micro entrepreneurs in the informal sector; and v)home workers and those with low levels of education.

A cluster development initiative that aims to ensure that the poor are not excluded from benefiting from emerging economic opportunities needs to adopt an explicit rights-based focus. This may involve:

- the active encouragement of the poor to articulate their needs and priorities and to improve their representation in appropriate forums.
- service provision that is tailored towards meeting their specific needs (for example, providing training courses for female workers at times that are compatible with household duties).
- investment in their capabilities of the poor at all levels productive, human, organizational and protective -through broad-based skill development initiatives, particularly in the areas of literacy, communication and leadership
- lobbying to tackle matters that go beyond production and relate to, for instance, health, access to basic services, energy and electricity or the like.
- ensuring access to resources (for example, through linkages with micro-finance institutions) and to protective schemes such as workplace insurance or social security programs. These can reduce their vulnerability to changes in the organization of the production system and increase risk-taking on the part of poor entrepreneurs.

If the implementing agency does not have the mandate or the resources to address capability deprivation in noneconomic areas, partnering with other national or international organizations that are committed to poverty reduction can be an effective strategy.



Box 4: Guiding principles for the implementation phase

The work of the CDA in implementing activities within the framework of a cluster development project is guided by four principles, which can also serve as yardsticks to assess his/her performance

- **Do not lose sight of the cluster vision:** resources should be focused on the development priorities agreed upon by the cluster stakeholders and not diluted or dispersed in tackling more marginal issues. Re-validating the vision from time to time can be a useful exercise to maintain focus and synchronize efforts.
- Remember the dual-purpose function of joint actions. Joint activities involving cluster stakeholders serve two functions. First, they produce measurable results in line with the cluster vision. Second, they generate trust and strengthen cluster governance. It is therefore imperative that CDA promote activities that collective rather than individual generate benefits. In some cases, however, activities that benefit individual enterprises or institutions may be justified by the expected spillover benefits for the cluster (e.g. attracting foreign investment into individual enterprises that may trigger growth in the cluster at large).
- Start small and quick and broaden the scope of activities. At the outset of most cluster initiatives, only a few of the leading and more visionary entrepreneurs or community leaders tend to be involved. Gaining their buyin and participation in pilot activities may offer the easiest entry point to generate demonstrable benefits. However, this path does not necessarily result in a spontaneous spreading of the initiative to other actors in the cluster. The CDA may need to encourage and nurture the involvement of other actors to avoid the danger that the benefits of the cluster development initiative are monopolized by the most powerful stakeholders.
- Mobilize local resources and seek cost-sharing on the part of cluster stakeholders. The implementation of the action plan is a responsibility that the CDA shares with cluster stakeholders, who are expected to contribute resources (not only financial but also time, premises, equipment, time, knowledge and efforts) to the process of cluster development. At the outset of the process, it is likely that the participants' contribution will be limited to time and in-kind contributions. However, over time activity implementation should increasingly involve cost-sharing and the CDA will increasingly raise the awareness of all stakeholders about the time-bound nature of the support provided by the implementing agency.