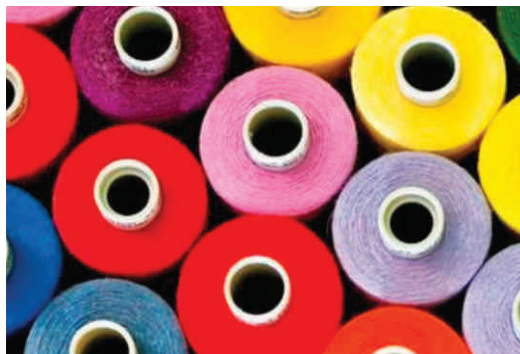


Implementing Business Development Services in Ahmedabad Dyes & Chemicals Cluster



Executed by:

Entrepreneurship
Development
Institute of India
Ahmedabad, Gujarat

Supported under:

MSME Financing & Development Project (MSMEFDP)



DFID Department for
International
Development

BDS Market Development Plan



Fig. : A Schematic Presentation of the BDS Market Development Plan



Director's Message

There have been certain radical changes on the Indian industrial turf demanding noticeable response from all quarters to benefit the Small Scale Sector industry. The new rules of managing competition demand a step-by-step strategy to not just sustain but also excel. It is encouraging to note that the Government, realizing this need, has come forward with a huge support infrastructure. An important aspect of this is subsidized business development services consultancy and counseling services to small industry owners so that they can implement right decisions and access right facilities. EDI with decades of experience in entrepreneurship and cluster development appreciates and endorses the role of business development services.

There needs to be awareness among entrepreneurs about Business Development Service Providers (BDSPs) as they play a significant role in propelling small industry owners towards success. On the flip side, however, the cadre of BDSPs needs to command contemporary knowledge on business related areas so as to facilitate Growth and Performance Improvement for existing small entrepreneurs.

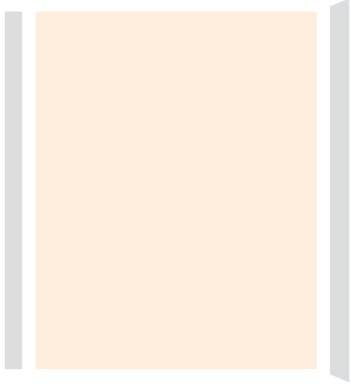
By executing this project successfully, EDI has attempted to impart a winning edge to SMEs by making available expert business development services and by parading a focused approach to strengthen the market of business development services.

I think as we talk about heralding the 'Knowledge Economy', it is time that our entrepreneurs value the significance of awareness, right skills and attitude in business. Research studies, sensitization and awareness workshops and capacity building programmes which will be undertaken by BDSPs, and the initiatives which in turn would be implemented by them will certainly turnaround the facade of entrepreneurship. Even Industry Association executives and other policy makers have been counseled and trained in a way that they move beyond their role as facilitators and act as business development service providers.

We are aiming high but very soon the time will come when entrepreneurs will engage BDSPs for conceptualizing and developing innovative business ideas.

- Dinesh Awasthi

Message - SIDBI





Business Development Services... a Boon for MSMEs

Global economic integration has today become a fact that the entrepreneurs have to live with. The world of multinationals and disappearing boundaries of nations have become irreversible sooths of the Indian business scenario. India's economic boundaries are more international today. While a window of opportunities has opened up for entrepreneurs, smaller firms are likely to come under severe resource pressure, lest they adhere to benchmarks, like, value added products, international quality, competitive prices and appropriate technology.

The MSME Sector plays a vital role in the country's economy. Their contribution in GDP, in creating income and employment generation is worth appreciating. However, the present scenario demands that to burgeon they will have to master the new rules of governing competition.

Under the changed world economic order, many a time MSMEs find it difficult to survive and grow. Increasing market competition, pressure of up-grading technology and hence productivity are all facts that are haunting the sector. Cost based competition is eroding their profit margins. Limited access to institutional finance too, is putting strain on their financial resources. Therefore, in order to solve the problems of MSMEs through provisioning of quality business development services and facilitating institutional credit to the MSMEs, the project entitled

“Implementing Business Development Services (BDS) in Indian MSME Clusters”, also known as BDS Market Development Project, was commissioned with the support of the World Bank, Department for International Development (DFID), UK, Kreditanstalt für Wiederaufbau (KfW) and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Germany. Small Industries Development Bank of India (SIDBI) was the implementing agency in this project.

Developing BDS Market and ensuring provisioning of quality BDS to the MSMEs were the main objectives of this project. Attempts were made to address the demand and supply side of the BDS market through adoption of strategic measures. Issues like availability and quality of raw material, technology upgradation, productivity and quality improvement, marketing and export development, improving management practices, adoption of financial discipline, increased access to formal finance etc. were handled prudently.

Defining BDS:

Business Development Services (BDS) are generally defined as "services that improve the performance of the enterprise, its access to markets, and its ability to compete. The definition of business development service.... includes an array of business services such as training, consultancy, marketing, information, technology development and transfer, business linkage promotion, etc. both strategic (medium to long term issues that improve performance) and operational (day-to-day issues). BDS are designed to serve individual businesses, as opposed to the larger business community."

(Source: Committee of Donor Agencies for Small Enterprise Development, 2001)

Three types of Business Development Services namely strategic, embedded and generic services were covered under the preview of this project. However, primary attention was paid on strategic BDS as it proved quite effective in addressing major problems of the MSMEs operating in the select MSME clusters in the country. This was considered effective in supporting their growth.

Types of BDS:

Generic BDS: 'Generic' services are basically routine services that are transactional in nature. Examples of such services are consultancy in the areas of tax, labour law, factory inspection, book keeping and accounts etc. These services are generally available easily and at times are available in large quantities.

Strategic BDS: 'Strategic' BDS are the services which can significantly impact a firm's operation, capability in one or more functional and management areas. It can help in upgrading value chain of an enterprise. Services targeting areas like technology upgradation, productivity improvement, design, marketing, diversification, brand building, testing, financial linkage, growth, business plan preparation etc. fall in this category.

Embedded BDS: 'Embedded' services are generally bundled with some products or services. Services of a machinery supplier who provides BDS like maintenance of machines, technical support, training, after sales service etc. for which the user does not have to pay extra, comes in this category. Training on appropriate use of machines by a machinery supplier, training on checking quality of raw material and its optimal utilization by a raw material supplier, fall in this category.



The BDS market, with its infinite reservoir of expertise holds the potential of refurbishing the MSME sector by addressing their functional and management problems and facilitating their growth in the era of globalisation.

Project Background

The flexibility, adaptability and potential for employment generation that MSMEs possess, assign them a critical place in the Indian economy. The sector has successfully contributed to employment creation, poverty alleviation and has also addressed regional imbalances. Their contribution to GDP is worth appreciating. Government of India has been taking proactive steps in the direction of strengthening the competency of Indian MSMEs. The Eleventh Five-year plan of the Government focused on the MSME sector for achieving various growth targets. The MSME Act 2006 has been another ambitious step in the direction of creating an enabling environment.

However, one of the lacunae MSMEs face in our country is non-availability of quality Business Development Services (BDS) which affects the performance of firms operating in the cluster. Unlike their large counterparts, MSMEs find it difficult to hire experts in various

functional and managerial areas on a permanent basis due to their limited financial capability. On the other hand they are not aware of the availability of quality BDS in the market. Many of their operational and management problems remain unresolved due to non availability of right kind of BDS. Further, it's been felt that for sustainable growth of a cluster, a well developed BDS market is important.

In the light of this, the Implementing BDS in MSME Cluster project was commissioned in 16 MSME Clusters in the country. It was a part of the SME Financing and Development Project (SME-FDP) supported by the World Bank, DFID, GIZ and KfW. While SIDBI was assigned with the responsibility of implementing the project, Banking Division, Department of Economic Affairs (DEA) of the Ministry of Finance, Government of India was the Nodal Agency for the same. In order to ensure smooth implementation of the project, SIDBI had set up a Project Management Division (PMD) at New Delhi.

In a comprehensive multi-stage selection process EDI was chosen as a Facilitating Agency in this project. The Institute was assigned the responsibility of implementing the project in 4 clusters namely, leather clusters at Kolkata, Santiniketan and Chennai and dyes & chemical cluster at Ahmedabad.



The Aims:

- Foster BDS market development
- Strengthen access of MSMEs to BDS
- Help make BDS providers in the clusters self-sustainable
- Develop select clusters as 'role models' with strong demonstration effects.

The objective of this Project was to, inter-alia, improve MSME access to finance and market oriented BDS, thereby fostering MSME growth, competitiveness and employment creation. The Project was designed to achieve this objective through a multi-pronged approach that address key bottlenecks to MSME financing, growth and competitiveness through intervention to strengthen BDS market and linking them up with the MSMEs for their sustainable and holistic development.

The Nature of BDS Demand & Supply

Deficiencies in BDS market in clusters vary in nature. Either the BDS services are not appropriate for the type of MSME or they are not cost-effective, or are unavailable, or not 'packaged' or delivered in the desired manner. Such deficiencies in both demand and supply were addressed by either transaction subsidies or specific interventions, like creating awareness amongst MSMEs improving quality & accessibility of services, new product development and capacity building for BDS providers etc. The outcome was envisioned in terms of improvement of MSME access to market oriented BDS, thereby fostering MSME growth, competitiveness and employment creation.

The project commenced on 13th March, 2009. It envisioned fulfilling the objectives over a period of 32 months from its commencement.

Action Plan:

The project was initiated with conducting diagnostic study in select 4 MSMEs clusters. The aim was to assess problems of MSMEs and BDSPs, understand the demand and supply side of the service market, and delineate the scope for improvement.

On completion of the diagnostic study action plans were readied in the clusters. The major focus areas of the action plan were as under;

- Capacity building of BDSPs including financial service providers, improving quality and accessibility of services, new product development etc.- Supply side
- Sensitisation and capacity building of the MSMEs-Demand Side
- Establishing MSME-BDS linkages

Capacity building of BDSPs, improving quality of services, developing new service products etc. were done so that the BDSPs can cater to the increasing requirements of the MSMEs and MSMEs after utilising value added services from the BDSPs could improve their business performance. The objective was to address problems of MSMEs, facilitate their growth and improve their competitiveness through provisioning of value added quality business development services by the BDSPs. The role of the business membership organisations here was to strengthen MSMEs-BDSPs linkages and institutionalizing the development intervention.

Expected Outcome

The project was expected to lead to:

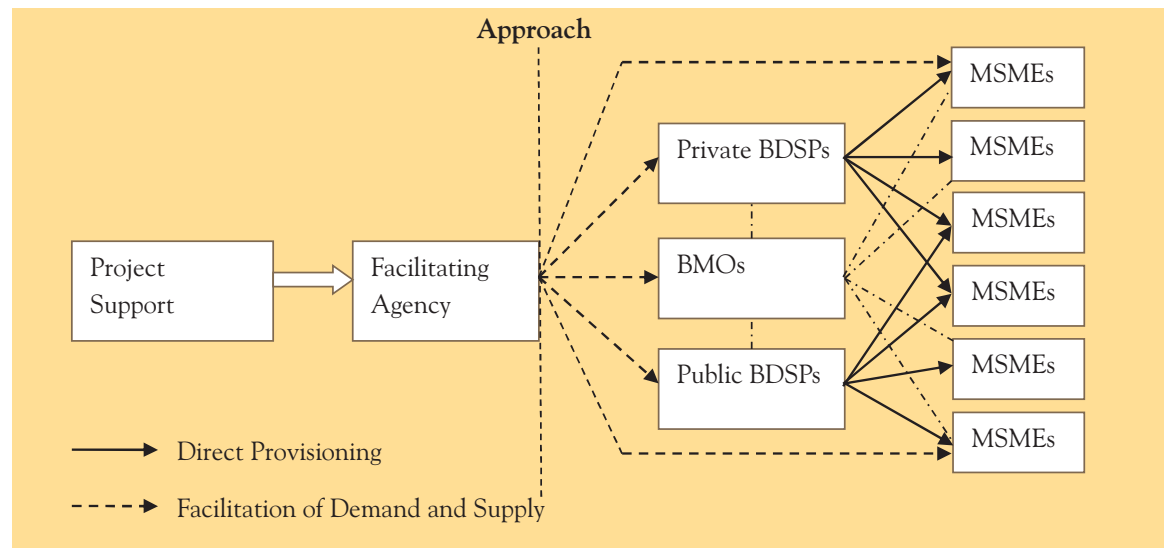
- Induction of new BDSPs and up-scaling of the existing business development services
- Increased BDS usage by MSMEs
- Better packaging of business development services with emphasis on advantages to MSMEs
- Improved access of finance for MSMEs
- Product development
- Quality and service benchmarking
- Preparation of BDS Directory/BDS Data Bank
- International market exposure to entrepreneurs
- Preparation of case studies on 'best practices' / 'role models'
- Sustainability of the BDSPs intervention
- Improved competitiveness, income & employment generation at the firm and cluster level, and
- Local Economic Development (LED)



The following diagram delineates the project, its intervention approach and expected outcome;

It is important to mention here that unlike the traditional approach of BDS intervention in many countries, where primarily reliance was laid on providing direct services to the MSMEs through public BDS or permanently subsidizing their services, here emphasis was laid on BDS market development wherein efforts are made to upgrade quality of existing services, offer value added services, through training of BDSPs, introduce new service products, capacity building of business membership organisations (BMOs), establish MSME-BDS-Institution linkages and increasing demand for BDS amongst MSMEs. Here both private and public BDSPs were assumed to take higher responsibility in terms of providing quality business development services to the MSMEs.

The following diagram delineates this approach of BDS market development.





Dyes and Chemicals....They Colour our World....Should we Spur the Industry?

Without these powders, pastes and liquid dispersions, our life could be colourless with no hint of exuberance and excitement. These make our world go round with their extensive use in a variety of essential industries. Today it's not just the Textile industry for which dyes and chemicals are indispensable but there are several other new sectors and areas that have emerged and are emerging everyday and which almost cannot function without these versatile dyes and chemicals. The industry must perk up to keep up with the rising demand.

Emergence of the Dyes and Chemicals Cluster, Ahmedabad

In the early forties, increased production of cotton triggered the creativity and entrepreneurial spirit of the people of Gujarat, which led to the establishment of several composite textile mills in Ahmedabad for manufacturing cotton fabric. Almost the entire Indian sub-continent was being fed by cotton fabric produced in the western region of India, viz. Mumbai and Ahmedabad. The creativity of the entrepreneurs then envisioned beautifying the fabric and one way of easily doing so was by adding hues of pink, green, purple, blue and many more to it. Thus emerged the thought of dyestuff manufacturing to colour the fabric, and a cluster appeared in the most happening textile region of Ahmedabad.

The textile processing units, mainly catering to the ever increasing demand of cotton fabric, flourished in Ahmedabad. Gradually, people developed a fascination for coloured fabric and the industry of Dyestuff manufacturing came into force, and prospered. As the city rapidly grew, Gujarat Industrial Development Corporation established notified area around the then existing Municipal Corporation limits, to attract more and more industrious entrepreneurs. The Chemical and Dyestuff units, came into existence in these areas, and their growth soared.

BDS Project Portal of the Dyes and Chemicals Cluster, Ahmedabad



Entrepreneurship
Development
Institute of India

Ahmedabad DyeChem BDS



MSME Showcase

BDS Showcase

BMOs

BDS E-Directory

**Public Institutions
E-Directory**

INTRODUCTION OF AHMEDABAD DYECHEM BDS

Given the importance of SMEs and clusters, SIDBI has launched a program to enhance the competitiveness of SME clusters through strengthening of Business Development Services (BDS).

With intent to facilitate increased flow of credit to MSMEs and support other developmental initiatives, SIDBI is implementing a multi-agency / multi-activity flagship Project on Financing and Development of Small and Medium Enterprises in India. The World Bank, Department for International Development (DFID), UK, KfW and GTZ, Germany are the major international partners in the Project. While SIDBI has been assigned with the responsibility of implementing the Project, Banking Division, DEA of the Ministry of Finance, Government of India (GoI) is the nodal agency for the same. For implementation of the Project, SIDBI has set up a dedicated Project Management Division (PMD) at New Delhi.

The Ahmedabad Dyes/Chemicals (Including packaging) cluster is located with in the

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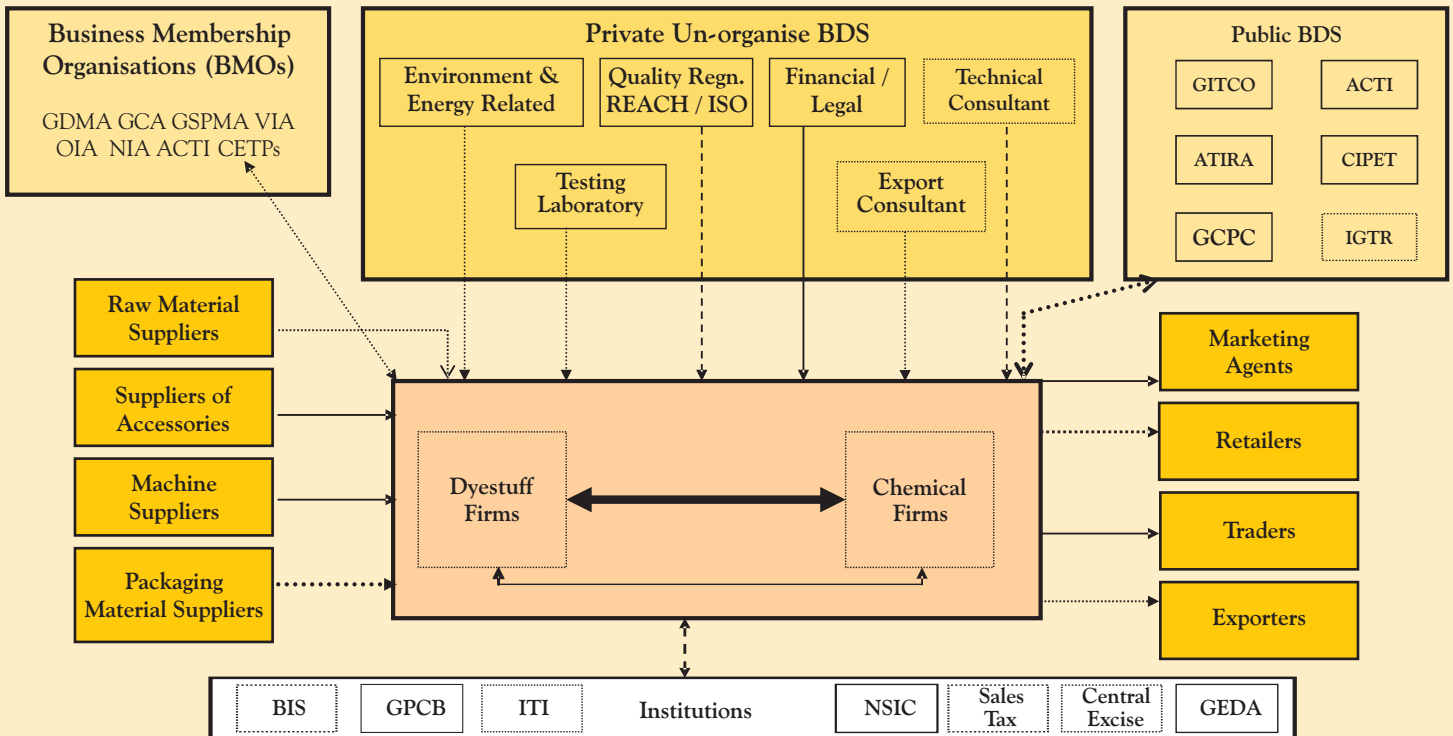
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Cluster Map

Cluster Map of the Dyes and Chemicals Cluster, Ahmedabad delineating Cluster Echo System is presented below. This Cluster Map manifests linkages amongst MSME units, Public and Private BDSPs, support institutions and backward and forward linkage members.



A thin border rectangular box for a group of stake holders

A thick Arrow shows a well developed linkage

A dotted border rectangular box for showing a poorly functioning Stake holder

A dotted Arrow shows a poor developed Linkage

GDMA – Gujarat Dyestuff Manufacturer's Association; GCA – Gujarat Chemical Association; GSPMA – Gujarat State Plastic Manufacturer's Association; OIA – Odhav Industries Association; NIA – Naroda Industries Association; CETPs – Common Effluent Treatment Plants; Quality Regn. – Quality Registration; REACH – Registration, Evaluation, Authorization and Restriction of Chemicals; ISO – International Organization for Standardization; GITCO – Gujarat Industrial Technical Consultancy Organization; ACTI – The Association of Chemical Technologists; ATIRA – Ahmedabad Textile Industry's Research Association; CIPET – Central Institute of Plastics Engineering and Technology; GCPC – Gujarat Cleaner Production Centre; IGTR – Indo-German Tool Room; BIS – Bureau of Indian Standards; GPCB – Gujarat Pollution Control Board; ITI – Industrial Training Institute; NSIC – National Small Industries Corporation; GEDA – Gujarat Energy Development Agency

Primarily the dyestuff units were established in Mumbai and southern parts of Gujarat, owing to their proximity to port. The visionary Gujarati entrepreneurs foresaw the need of establishing these units at a crucial centre, i.e., Ahmedabad, to be able to catch the trends of the market. Thus began the dyestuff manufacturing units in Ahmedabad about 40 years ago. Names such as Shri Kasturbhai Lalbhai, who is the pioneer of Dyestuff Industry in Gujarat as well as entrepreneurs, such as; Shri Jayendra Kharawala, Shri Gautam Jain, Shri Dinesh Shah, to name a few, are the key persons who have contributed to the development of the cluster of dyestuff and chemicals in Ahmedabad.

Opening up of world trade and cost effectiveness of Indian manufacturing attracted many big traders, across the globe, involved in marketing of dyestuff to establish processing units. Thus a boom arrived in export of Indian Dyestuff since 1985, which helped many increase manufacturing manifold to cater to the growing demand in export.



Application of Dyes & Chemicals in Textiles

Status of the Cluster:

Dyes and Chemicals are mostly products of crude oil. The products are manufactured worldwide in both developed and developing countries. Europe, United States of America and a few Latin American countries were the main producers of Dyes and Chemicals till some years back. The global dye manufacturing industry originally dominated by suppliers from Europe namely UK, Switzerland and Germany, shifted to Asia some 20 years back. This was primarily because of two reasons. First, lower cost of production and secondly, Asia's growing prominence as the hub for global textile industry. Chemical Industry is one of the oldest industries in India, which contributes significantly towards industrial and economic growth of the nation.

The Ahmedabad Dyes and Chemicals cluster is located within the Municipal Corporation limits of the City of Ahmedabad in the central region of Gujarat in the GOLDEN Corridor. This is one of the fastest developing industrial corridors of Gujarat. There are more than 1000 different dyestuff derived from a vast variety of chemicals. The chemicals have a wide range from organic to inorganic substances.

Dyes Sector:

Dyestuff is a broad term which includes dyes and pigments. A dye is a coloured substance or an organic compound, which when applied in a solution form to a fabric, imparts a colour resistant to washing. They are largely used by textiles, paper and leather industries. With the demand in textiles accounting for over 80% in India, the dyestuff industry's fortune appears bright.

The important dyes manufactured in Ahmedabad are:

- Reactive Dyes like Black B5, Red ME4BL 195, Yellow 145, etc.
- Acid Dyes such as; Black 210, Black 234, Red 18, etc.
- Direct Dyes such as; Black 22, Violet 9, etc.
- Pigment Dyestuff such as; Green 15, Blue 15, etc.

Chemicals Sector:

Ahmedabad is known to manufacture inorganic pigments used extensively in manufacturing dyes and other catalytic applications. There are organic compounds in the form of resins and allied class, used in paint and other applications.

The chemicals produced and utilized for the manufacture of applications are even greater than the colouring matter. The chemical sector is mostly into organic and inorganic chemicals. The organic section deals mainly with hydrocarbons whereas the inorganic section deals mainly with metals and metal derivatives.

The important chemicals manufactured in Ahmedabad are :

- Organic compounds such as; H Acid, Vinyl Sulfone, J Acid, etc.
- Metal Salts such as; Ferrous sulphate, cuprous chloride, etc.
- Textile Auxiliaries such as; softening agents, etc.

There are more than 1200 units within the municipal corporation limits of Ahmedabad.

Distribution of Units According to Investment, Turnover & Employment:

Sub Sector	Size of Unit	No. of Units	% of Units	Turnover in million ₹	Employment Generation
Dyes & Chemicals	Micro	803	65%	30,000 (664 million US\$)	13000
	Small	375	33%	55,000 (1217 million US\$)	20000
	Medium	22	2%	16,500 (365 million US\$)	5000

Market for BDS and BDSPswas not Buoyant Here:

The unit members worked with the attitude of 'we know it all.' They saw outsiders as intruders who were only acting as nosy parkers to extract details about their business. They seemed to be fiercely protective about their business.

However, one factor which was highly encouraging was that the cluster was home to several BDSPs. But, on hind sight what was noticed was that the cadre of BDSPs had no credibility in the eyes of entrepreneurs. The units did not have connection with BDSPs and felt that advice of BDSPs (even if sought) would never justify the fee that is paid to them. There was a total absence of trust between them and BDSPs. Also, except for the presence of some generic BDSPs, the cluster lacked support of such professional consultants in dealing with its multitude of problems.

EDI's Strategy:

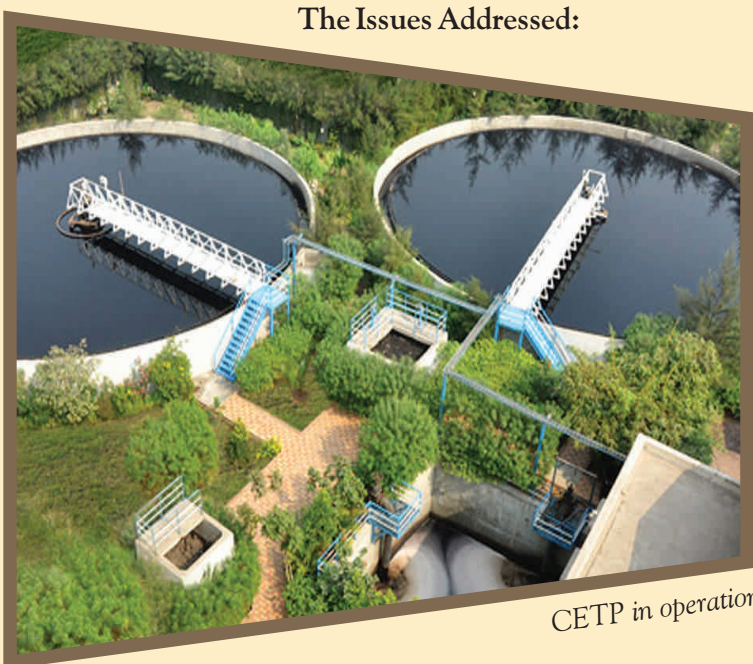
In dealing with problems, EDI focussed on three primary areas of Ahmedabad, viz; Naroda, Odhav and Vatva as these house the maximum number of dyes and chemical units. The idea was to create best practices in these cluster units so that they could be replicated by other units. The

Institute's primary concern was to introduce changes through BDSPs whose presence was there in the cluster but their acceptance among entrepreneurs was absent.



According to Mr. Rayjibhai Patel, President of Naroda Industrial Association (NIA), "In this area there are around 130 units engaged in production of dyes & chemicals, and NIA has always sought to play the role of a catalyst in their growth. The Association facilitated EDI in establishing contacts with these units, organizing awareness and training programmes, forming special purpose vehicle (SPV) and also played the role of a BDSP.

The Issues Addressed:



Concern for Environment:

The MSMEs were not very conscious about following strict pollution control norms. It is mandatory for the units to carry out primary treatment as per the inlet norms described by the Common Effluent Treatment Plants (CETPs). CETPs, in turn, have to meet the norms set out by Gujarat Pollution Control Board. Most of the units were not vigilant about their practices and, therefore, failed to keep up with the requirements as prescribed by the authorities. Also on account of flawed production processes, the effluent discharge is beyond the permitted limit and, therefore, do not meet the CETP norms. As a result, CETPs are unable to meet GPCB norms and are denied requisite certification. Most units were at the risk of closure as although they understood the problems, they did not see light at the end of the tunnel and so continued with

age old systems and production processes. In addition, the awareness was also abysmally poor among some sections. The Institute, therefore, decided to primarily conduct awareness workshops and then introduce them to tangible solutions. A heartening aspect here was that about 93% of the unit entrepreneurs were ready to pay for technical consultants if assured of concrete results.

A training-cum-interactive workshop was conducted to educate them about the significance of such measures and the capability of BDSPs to address the issue of effluent treatment. The next step involved BDSPs to carry out 'Effluent Treatment Need' study in 5 selected model units and subsequently demonstrating in these units as to how the norms, as prescribed, for discharging effluents could be met successfully. The BDSPs were guided to set up a Primary Treatment Plant in the model units so that other units could follow suit and adopt the best practices. For this, waste water samples were analysed and the pollution level of various contaminants was evaluated. Treatability examination was then conducted on waste water streams and based on the data collected, design and specifications of the Primary Treatment Plant were worked out.

After ascertaining its suitability, it was implemented and handed over to the unit. The cluster today bears an optimistic countenance as the members are convinced about the replicability of this model plant. Most units within the cluster have initiated measures to adopt the same. The units are no longer at the risk of closure. Their faith in the technical competence of BDSPs has also been endorsed. A number of Business Development Service Desks have also been established to make it easy for entrepreneurs to access information.



Mr. Tarak Parikh, Director, Environmental Projects Management Pvt. Ltd. was one of the BDSPs engaged to provide technical consultancy to entrepreneurs in the field of water pollution control. According to him, “The Gujarat Pollution Control Board is very strict about maintaining the standards of polluted water and has set it at 3000 Chemical Oxygen Demand (COD). If any unit crosses this limit, it has to treat water at its place in the primary treatment plant to bring down the COD level. The primary treatment plant is worth around 2 to 3 lac and many of the units do not install such plants. Such units even discharge polluted water having COD up to 7000 in the CETP. I am glad EDI intervened in this area. I even appreciate the support to encourage entrepreneurs to seek help from BDSPs in case of high COD. The efforts may not have started yielding 100% result but they will soon bear fruits and this I can say from the example of Vapi estate where the problem was the same, but is today totally under control as the entrepreneurs have adopted scientific methods of pollution control. The estate is no more in the critically polluted zone category. Ahmedabad will take time in reaching that stage but will sure be in this blessed state.”



A Special Purpose Vehicle was also established to resolve the problem of acute pollution in the case of some units. Mr. Anil Agarwal, the Chairman of this SPV, said “The common effluent treatment plant caters to 600 units. All units send their polluted water to this CETP. In some of the units' effluent water, there is more Total Dissolved Solid (TDS) & Chemical Oxygen Demand (COD), which is hard to process as they consume more energy and time. So these units, which discharge high TDS & high COD in effluents, must treat the water separately and then send to CETP.



With this idea, 56 units were counselled to come together and establish an SPV to first treat effluents at their end and then send the same to CETP. EDI helped them form a society and involved the Gujarat Industrial Technical Consultancy Organisation (GITCO) for preparing the Detailed Project Report for submitting the same to the Development Commissioner, MSME, Ministry of MSME, Govt. of India for financial assistance. The cost of developing the DPR was ₹ 5.25 lacs and EDI contributed ₹ 2 lacs towards this expenditure. This would serve as a ‘Model’ for other producers to follow suit.”



Mr. Vipul Shah, a private BDSP, sharing his knowledge & experience with students

Cleaner Production:

Economies of scale and scope are distant dreams for entrepreneurs. Most units are technically not sound and hence their processes inhibit entrepreneurs from aiming for best results. They were far behind the potential on account of poor technical speciality, lack of professional consultancy and meagre knowledge of production processes. These lacking areas dangerously contributed to gross negligence of the environment and ethical standards on the part of entrepreneurs. Adoption of Cleaner Production technologies was a dire need and this necessitated leaving behind traditional methods of manufacturing and production, starting from the stage of planning to include product design and concern for environment. The very process of thinking was on the blink as the entrepreneurs showed least inclination about controlling waste at source. The idea needed to be driven in, thus convincing them about introducing changes in business strategy to target

environmental concerns and enhance efficiency simultaneously.

Thus, cleaner production methodologies were compulsory for the cluster to control pollution, facilitate economical pricing of products by cost cutting and enhance profitability. To create a demonstration effect 15 units were primarily selected. Local BDSPs were involved to undertake the implementation work which involved formation of a Cleaner Production (CP) team after due deliberations, finalising the focus areas based on a SWOT analysis of the unit, examining the cost benefit analysis, getting due approvals and implementing the system. Mr. Vipul Shah of Vipul Shah & Association became a part of the project as BDSP in the field of CP. Mr. Shah conducted energy audits at 12 units in the cluster and suggested measures to minimize waste. He was also instrumental in training and developing a cadre of 28 students in the area of CP.

Simultaneously, EDI also educated the entrepreneurs on work space ergonomics. EDI familiarised them with the Japanese concept of 'Five S' for house keeping and place management. The concept has been in operation since long but the same was introduced by EDI in the cluster to make entrepreneurs examine their workplace and introduce appropriate changes to achieve:

- Increase in productivity
- High quality production
- Reduction in production cost
- Timely delivery
- Increased safety for workers and
- Increase in motivation and morale.

Endorsing it, Mr. Abhimanyu Samrat, Chief Executive Officer, Samrat Associates says, "There are marked improvements in the working conditions, networking, increasing production, etc. and, therefore, I strongly feel that the project should continue for a longer period for the benefit of the sector and the entrepreneurs."



According to Mr. Rayjibhai Patel, President of the Naroda Industrial Association (NIA), “The entrepreneurs got useful information in the area of responsible production, besides knowledge on cleaner production techniques, space management and work area maintenance. For instance, the entrepreneurs packed dyes & chemicals in minimum 1 kg. bags, thus making it difficult for those wanting to buy smaller quantities. The BDSPs counselled the entrepreneurs on this and today they have started the practice of packing in less than one kg bags. This has benefited the producers by increasing their business as customers have started purchasing as per their requirements.

Mr. Patel further states, “Under cleaner production, the focus was on minimizing waste in all forms, i.e., energy, water and material. To produce a specific dye, certain molecules have to be mixed in a fixed proportion. But unfortunately, nobody followed the norms in the cluster; instead relied on manual mixing which led to a lot of wastage. At NIA, Naroda Cleaner Production Association was established, as a separate cell, to provide expert services in this field and till date, it has successfully addressed the woes of around 50 enterprises.”

A common evaporating unit for hazardous waste and effluent was conceived as a step towards eco-friendly environment. The project was executed by GITCO, under the aegis of SIDBI supported SME-FDP Project (implemented by EDI). Under its purview, facilities are being set up for evaporating hazardous effluent by employing Multi Effective Evaporation method which uses spray dryer & other scientific techniques. Adopting this technique of evaporating effluents would help achieve Zero Discharge.

Energy Utilisation:

A country where a colossal number of people do not have access to electricity even a minimal wastage of electricity can't be justified. An area that is garnering increasing attention these days is the huge wastage of energy by the industry sector. The dyes and chemicals sector, Ahmedabad has been studied by the BEE and in a shocking revelation more than 85% of the units are consuming extra energy leading to a huge wastage of precious resource. About 60% of the organisations in this cluster were consuming more than 40000 units per annum which could be reduced by about 35%. These standards were in sharp contrast to the value chain analysis, according to which, energy consumption should have been around 8 % of the cost of material.

So, energy wastage in the cluster was appalling and to address the problem 20 units were identified to serve as model units. For saving energy, the areas examined were related to the functioning and upkeep of boilers, electrical drives, refrigeration systems, building management, apart from the areas of general lighting, load scheduling, etc. A focused, strategic and scientific approach was adopted to identify opportunities and implement efficiency measures and practices. Energy efficiency improvement was the primary target and this led to efficient use of motors, drives and pumps, both for process equipment and compressed air systems with judicious use of electrical energy.

The results, however, did not come in easy as the users first had to be convinced about the significance of the intervention towards which they expressed their absolute reluctance initially. However, the approach adopted by experts convinced the entrepreneurs about the knowledge of

these experts. The banks and financial institutions' personnel were also sensitized and their capacities worked upon, to appreciate and support energy efficiency measures by financing prudent moves in this direction.

The specialists began the process by planning maximum demand for a particular industrial application- using the principles of load balancing and scheduling in the production area, and making power factor corrections. They identified and modified the existing usage of prime movers/energy generators, suggested changes in the specifications of prime movers and use of proper combination of loads (inductive and capacitive). The next step involved identification and improvement of the processes to achieve optimum energy efficiency. However, the modifications that were suggested, involved capital expenses, changes in the way the processes / plants operate. Entrepreneurs from over 85 units participated in these workshops and most of these volunteered to go in for audits as they were now fully aware about the benefits of energy audit and had faith in the expertise of BDSPs also.

Being a significant move towards giving a facelift to the sector, the Project spent ₹ 4.42 lakhs in workshops/ meetings and in arranging the audits, under this intervention. 18 model units spent a total of ₹ 79.74 lakhs. This led to an annual saving of ₹ 52.09 lac thus substantially raising the profit margin. The intervention demonstrated that the pay back period for investments made on energy conservation is 1.5 years. The project has clearly shown that every rupee spent on energy saving measures gives an annual return of 66 paisa. Energy cost being 8% of the final cost of the product, this is a proven cost saving measure for the industry.

NIFA Electronics Pvt. Ltd. joined hands with EDI to provide energy conservation solutions to entrepreneurs. Entrepreneurs were counselled on the significance of adopting energy conservation models. As a mark of encouragement, EDI awarded five enterprises for carrying out energy audit. The entrepreneurs had inhibitions as they could not see immediate results and needed to be counselled to place their trust in the intervention and the BDSP. With a few success stories before them, gradually, however, more and more entrepreneurs came forward to recognise that the intervention led to improvement in production quality and brought returns on investment in one year.

Mr. Nikhil Shah, Director-Technical, NIFA Electronics Pvt. Ltd. is working in the area of Energy Conservation for last 20 years. He says, "The dyes & chemicals sector is an unorganized industry. Entrepreneurs, involved in production are always struggling with their own set of problems such as; marketing, labour, pollution, quality maintenance, etc. The industry entrepreneurs are gripped with insecurity as they feel working in a team, would make their business secrets known to all. Here, of course, only BDSPs can counsel and bring them to work together on some major business areas."



Raw Material Procurement and Marketing:

The cost of raw material in the dyes and chemicals sector constitutes a major chunk of the total cost. In the Ahmedabad Dyes and Chemicals Cluster, it ranged between 75% to 80% of the total cost of production. Procuring raw material at an economical rate was a challenge for entrepreneurs and this went on to play a major role in the final pricing of the product. Despite the



prevalence of this problem, no effort had been made to form a consortia or to approach bulk buying. Also direct marketing was a major concern among almost all units of the cluster. They undertook export only through traders. And, the root of this problem lay in their small scale operation of business. Their inability to handle bulk orders prevented them from taking the plunge into the export market directly. In the absence of a focussed marketing strategy, they catered to only 8% of the global demand. Their over reliance on middlemen and traders not just affected their prospects but also dampened their spirits.

The solution lay in forming a raw material bank within the cluster so that the smaller units could get the advantage that bigger ones enjoyed in terms of cost competitiveness. Added to this was the advantage of price and hassle-free bulk buying for buyers. With the idea having got accepted well by buyers, the units were guided to club their capacities to take bulk orders. The arrangement, however, has been planned in a way to protect their identity and not dilute it. In keeping with the plan, each entrepreneur would use this common platform to procure raw material and get a distinct price advantage. The entrepreneurs were also guided on maintaining uniform quality. This common platform, or the Special Purpose Vehicle charges the units a token service fees to cover their administrative and coordination costs. Bringing the entrepreneurs on a common platform was not an easy task, they had to be convinced about the advantages of the intervention to each one.

It is heartening to note that more than 50 members of the cluster came forward to set up the SPV under the name of “Ahmedabad (A) Dyechem (D) Manufacturers (Ma) Cluster (C) Limited” (ADMAC).



Potential buyers from Chennai visited Ahmedabad Dyes & Chemicals Cluster

ADMAC is functioning as a no profit distribution company with the purpose of promoting collective buying so that the buyers can procure raw material in bulk and enjoy the advantage of price, thus assigning competitiveness to their operations. ADMAC has become the cornerstone of the cluster and has earned amazing acceptance. Its members comprise: 15 promoters who contributed ₹ 25,000 each to set up the SPV; associate members who joined the SPV after its formation, (although their contribution is the same as others, they took less risk as they chose to wait and assess the success of the SPV before joining) and adhoc members who are the ones who have not formally joined the cluster but can avail *limited* common procurement and marketing benefits, as per the terms of agreement between the SPV and such unit entrepreneurs.

ADMAC Soars High.... Some Evidences

The SPV received an order for ₹ 28 lakhs from the Chennai Leather Cluster. The order has been executed. Simultaneously, it has initiated measures to explore the Panipat Carpet Cluster, Badhoi Carpet Cluster and the Ludhiana Knitted Garments Cluster. It has led to an advantageous state of affairs for both the buyers and the sellers - a fact which is fast getting recognized and hence the response to the SPV is overwhelming. The estimated increase in volume is by 10% leading to a gain of ₹ 240 lac/per annum/per unit. The Institute has facilitated Naroda Industrial Association (NIA) in setting up the SPV and as Mr. Rayjibhai Patel, President, NIA puts it, "This has helped establish a strong network between the actual users and the manufacturers and assures the buyers regarding quality of products, delivery in time, besides giving the entrepreneurs the advantages of negotiation, new markets and team work. The platform also promotes experience sharing." According to Tarak Parikh, Director, Environmental Projects Management Pvt. Ltd, "This platform will help us make a dent in the foreign markets as we can take advantage on the fronts of technology, raw material purchase, quality, etc. much to our satisfaction as also to that of the buyers. This will promote networking among entrepreneurs which, in turn, will give us the leverage of negotiation and we would together be able to implement strategic and tactical methodologies in dealing with foreign clients."



**Unit: Synthopharm Chemicals,
President: Mr. Shailesh Patel**

The company was established in 1995. It has an annual turnover of around ₹12 crores and supplies dyes & chemicals to leather, paper and textile industries in the domestic market. Mr. Patel is one of the 13 members of the Special Purpose Vehicle established to promote sales.

Mr. Patel appreciated the concept of forming an SPV. According to him this has facilitated sharing of information/ knowledge, discussion on problems and strong unity among the members. Mr. Patel, citing an example to support his argument said, "In tanneries, the tanner puts leather worth ₹ 50 lac in the drum for tanning. During this process, along with other chemicals, dye worth ₹ 1 lac. mixes with leather. But due to some reason, if the lot is not properly tanned, the entire blame comes on the supplier of the dyes. But if we are a member of SPV, we will have a platform to put forth our case more strongly with support from other members. In the leather industry, tanners do not have a testing laboratory for dyeing leather, one has to take trials when it comes to a new dye. This means a requirement of at least 5 Kgs. of dye., which costs around ₹ 40,000/- to entrepreneurs. Sending this free of cost is not a risk which many would take. But, it was because of my newly found confidence that I sent ₹ 40,000 worth of dye as sample for testing purpose. I am glad I did so as this fetched me an order of ₹ 50 lac."

Mr. Patel was also a part of the delegation that visited Turkey for exploring newer markets. "The visit exposed us to the ways of dealing with other business groups at the international level. We also came to know some significant aspects of doing business abroad. Had this project continued for a little longer duration, a lot more could have been done. Entrepreneurs could have come face-to-face with many more areas of growth as we could have benefited more from EDI's presence across India."



Cluster participating in TURKCHEM, Istanbul, Turkey

TURKCHEM.... An Exposure of Sorts

The Indian colorants industry is expected to register a steep growth in terms of export by 2020. The entrepreneurs, therefore, need to update themselves with export procedures to be able to understand the potential of this market. EDI, therefore, planned a visit of the entrepreneurs of the dyes and chemicals cluster to TURKCHEM, the largest fair in the sector.

TURKCHEM is an international fair on dyes and chemicals and is known for giving an upsurge to entrepreneurs involved in this business. It is a unique platform that imparts knowledge and information to entrepreneurs, thus helping them formulate strategic plans for growth of their business. In view of these advantages, EDI organised a visit of 15 entrepreneurs of the cluster to TURKCHEM at Istanbul, Turkey for a period of three days.

In the exhibition, the delegates came to know about various new applications of dyes and chemicals for textiles, modern technologies that could be employed in production and also the ones that could help control environmental and water pollution. The event witnessed participation of more than 400 exhibitors, thus presenting an opportunity to Indian entrepreneurs to replicate best practices and innovations back home.

The delegation also interacted with the members of Turkey Textile Dyeing and Finishing Industry Association and learnt about the scenario and the trends of business in Turkey. A meeting with the Consulate General of India (CGI) and other officials of CGI in Istanbul gave them insights

into the legal and commercial issues in Turkey. The buyer-seller meets further complemented their understanding of the Turkey colorant market and they realised the variations that they were expected to introduce in their approach if they had to enter this market.

Mr. Dhawal Patel of Krishna Industries is one of the entrepreneurs who visited Turkey to find greener pastures for his products. Mr. Dhawal thanked EDI incessantly for giving small scale units an opportunity to venture out, understand the role of marketing in the growth of an enterprise and develop the urge to explore newer markets. "I was happy that EDI involved the Indian Embassy in Turkey, as their efforts gave us an opportunity to interact with our counterparts in Turkey."

Quality Consciousness:

The entrepreneurs of the cluster dreamt big and sought to target the developed European market but lacked knowledge on the procedures and recognitions required to tap this wide market. Entrepreneurs lacked knowledge on the mandatory Registration, Evaluation, Authorisation and Restriction of Chemical substances (REACH) certification as laid down by European Regulations. REACH certifies protection from risks that chemicals pose to human health and the environment. This lack of knowledge as also the systems to comply with the norms was a major deterrent to their growth prospects. EDI helped entrepreneurs gain knowledge through awareness camps and personal counselling. Several entrepreneurs have applied for necessary certifications.

Skill Development:

Efficiency and effectiveness suffered in the cluster as workers lacked training. The entrepreneurs did not look for specific skills while inducting a worker. The cluster lacked trained manpower. The entrepreneurs also lacked inclination towards undergoing training to improve their skill level or arranging for training for their workers to enhance their strengths.



Buyer Seller meet during TURKCHEM 2010, Istanbul, Turkey

Training to improve quality and productivity was a daunting task in the cluster as the breaches in skill levels were highly prominent. This was one major factor which was keeping the cluster away from the zenith. It had laden the cluster with self doubts and inhibitions, and the issue was hence addressed with immediate effect.

Primarily the workers' and the supervisors' skill levels were analysed and need based training programmes were planned to address the skill deficiency in them. A significant aspect of this training was personal counselling and guidance, and on-the-job training. Students from technical institutions were also involved, in addition to BDSPs, so that the workers could get contemporary knowledge on technical trends and practices. Also, in order to help the BDSPs remain at par with the modern trends in business

aspects of the dye stuff industry, regular capacity building programmes were conducted.

The Who Does Who Pays (WDWP) Matrix is one of the important instruments used world-wide to indicate the impact of the BDS project intervention. The WDWP Matrix of the Ahmedabad Dyes and Chemicals Cluster before and after project intervention is presented below. The matrix clearly indicates that there has been increase in number of service providers, both private and public, as a result of implementation of the BDS project. It also indicates introduction of new specialized services and service providers and beneficiaries' increasing willingness to share cost of BDS usage.

BDS Type	Firm Type	Project Start		As on Oct 2011	
		WD	WP	WD	WP
Environment	All	PUB, PV(O)	100%(F) 0 % (SO)	2 PV(O)	33 % (F), 66% (SP) 100 % (F)*
Cleaner production	All	PUB	100% (SO)	2 PUB 2 PV(O)	33 % (F), 66% (SP)
Energy**	Small	PV(O)	50% (F) 50% (SO)	3 PV(O)	50% (F) 50% (SO)
	Micro	PV(O)	10% (F) 90% (SO)	2 PV(O)	10% (F), 90% (SO)
Training	All	-	-	4 PV(O)	80%(SP), 20% (F)

Existing and New BDSPs Goaded on to Target New Successes

The cluster needed to sport a developed BDSP market. Despite their existence, to a reasonably fair extent, the benefits that should have accrued, were unobserved as the currents of distrust and disbelief in the abilities of BDSPs were quite conspicuous. All interventions that the Institute implemented involved BDSPs, a strategy deliberately adopted so as to restore faith in the abilities of BDSPs. Also, regular capacity building programmes updated them with all that was latest in different business aspects. EDI was aware about the significance of getting them complete recognition and, therefore, instituted a holistic strategy.

- A system of “empanelling BDSPs” in various areas was initiated to record their capability and past performance, with a proof of verification which acted as a kind of certificate. This information is then shared with units. Such an officially maintained document has positively impacted the BDSP market in the cluster.
- Against the backdrop that entrepreneurs might take time in getting used to the idea of seeking assistance from consultants for their problems, the Institute has set up BDS Desks in the premises of 3 major Business Membership Organizations.
- A web site and portal has been created to draw new BDSPs to the profession, and make them aware about the potential in the field. The objective is also to help entrepreneurs reach out to BDSPs easily.
- Specialized training programmes for BDSPs helped in building their capacities, and one-to-one linking with cluster units created mutually beneficial situations for BDSPs and the entrepreneurs. As of now 35 new BDSPs have been directly linked with cluster units. Besides, 65 BDSPs have been trained in special skills, technology and contemporary processes and systems.
- In order to widen the platform for BDSPs, linkages have been facilitated between the cluster BMO and other 16 clusters taken up by SIDBI under their SME-FDP project. This interaction has helped in exchange and adoption of best practices. Linkages at Chennai, Panipat, Ludhiana, Tirupur, Kanpur, Bhadohi & Kolkata have started yielding tangible impact.

Results that Get Noticed

Programme		Outcome
1	Awareness on Environment, CP & Energy Conservation	320 entrepreneurs
2	Skill Development	48 entrepreneurs
3	BDSPs linked	38 entrepreneurs
4	BDSPs Trained	30 entrepreneurs
5	Obtain CETP Norms	20 units
6	Productivity Improvement	20 units
7	Market Linkages	10 units
8	Energy Saved	15 units
9	Savings done (energy, productivity, etc.)	₹ 40 lacs
10	Voucher Cost Supported	43 units
11	Transactions w/o VC support	85 units
12	SPV created for Common Marketing & Purchase	6 linkages
13	BDSPs Directory	150 BDSPs included

Goal	Achievement at the end of the project
Increase turnover by 10% in 20 MSMEs	More than 10 % turnover increased in at least 20 MSME units in the cluster
Enhance product quality	Product quality improved in 25 firms of the cluster
Overall productivity increase by 10%-12%	Productivity has been increased by 6%-7% in 14 units, where cleaner production, PTP and Energy Conservation exercise had been undertaken.
Improving satisfaction index of BDS usage	Satisfaction index of BDS usage improved, substantially
Introduce BDSPs in 30 MSMEs	10 BDSPs introduced in 34 firms
100 MSME units must have awareness about environmental problems and their solutions. 5 PTPs to be established and as a result of this 15 more units must adopt the same.	<ul style="list-style-type: none"> - 155 units got aware on environment hazards and solutions - 4 units upgraded their PTPs - 50 more units got inspired to upgrade their PTPs
100 MSME units to learn about cleaner production and its impact on pollution load. 15 units to be supported for CP and other 35 units to be motivated to go for it.	<ul style="list-style-type: none"> - 165 units got aware on Cleaner Production - 15 units undertook Cleaner Production exercise - 10 more units got inspired to go for Cleaner Production exercise on their own

EDI experts were happy with the way results were unfolding and responses pouring in. Although the project has ended, a life long relationship has been forged. What better testimony than the words of Mr. Rayjibhai Patel, President of Naroda Industrial Association (NIA) - “The project must continue to cover each and every entrepreneur as some proactive entrepreneurs have drawn maximum benefit from this project but some who were not so sure about it waited for the results to speak, and are today willing to come forward and benefit. Such entrepreneurs could gain more if the project was prolonged.”

In the same vein, Mr. Abhimanyu Samrat, Chief Executive Officer, Samrat Associates, one of the beneficiary entrepreneurs gives credit to EDI for introducing the concept of Business Development Service Providers in the Dyes & Chemicals Cluster, Ahmedabad.

He says, “But for this initiative, small entrepreneurs would have never come to know about areas, like; health and safety, hazard identification and risk assessment. The industry faces a lot of problems pertaining to water and air pollution. These harm the environment and affect human beings. BDSPs played a major role in creating awareness and providing appropriate solutions to entrepreneurs.”



The project for providing Business Development Services to the Dyes and Chemicals Cluster of Ahmedabad was undertaken with the prime objective to enable MSMEs of the Cluster to achieve and sustain growth and competitiveness in the national and global markets. The strategy adopted for achieving this objective was: to enhance the supply of BDS Service Providers in critical areas, strengthen the quality of such services and make them affordable to MSMEs by achieving market expansion of such services. Key areas that were identified for such services were energy, environment, cleaner production, quality and cost effectiveness. At the end of the project tenure of 32 months, we could achieve significant outcome in the desired areas of interventions.

Mr. Bipin Shah, Project Director,
Dyes and Chemicals Cluster, Ahmedabad



