

EXECUTIVE SUMMARY

In India, approval has been given to 579 SEZs till November 2010. Out of these, 367 have been notified by Government of India and 122 are in operation. SEZ is a buzzword in India at present, though some contentious issues are hampering the development of these SEZs and therefore they are unable to contribute effectively towards country's exports and also to the overall economy. As per our study the technical issues hampering the development of SEZs are lack of technological support services, use of low technology and non technical issues like resistance in land procurement, frequent amendments in the SEZ Act, and inadequate government investment, while in other countries, government is the major investor in developing SEZs.

In order to find out the Technology Support Services now required in the SEZs to enhance their exports and global competitiveness, especially in Chemicals; Food processing and Textile sectors, Department of Science and Technology, Government of India, entrusted this study to Centre of International Trade in Technology (CITT), at Indian Institute of Foreign Trade (IIFT), New Delhi with the following objectives:

- Assessment of present status of technology support services in SEZs, their critical analysis & comparison with SEZs of other foreign countries.
- Need & requirements of units in SEZs w.r.t. various Technology Support Services against the national and international benchmarks.
- Identification of the critical gaps between the availability and needs of technology support services.
- To propose measures to strengthen and augment the technology support services.

Methodology

An initial desk research was carried out on the genesis of SEZs in India, rationale for their setting up and growth. The desk study also included global scenario of SEZs (or free zones) in six select countries, namely China, Poland, Russia, Taiwan, UAE and South Korea.

In order to ascertain the technology support services existing in SEZs in India, a draft questionnaire was formulated. The questionnaire also included plans for future growth and eliciting suggestions from the various units as well as developers of SEZs.

In order to get the views of a wider section of experts, a Local Project Advisory Committee (LPAC) was constituted by NSTMIS, for monitoring the project and giving advice from time to time. This Committee consists of members from the following Ministries: Science and Technology, Chemicals & Fertilizers, Food Processing Industry, Textiles, Commerce & Industry. Faculty members from Academia as well as Experts from Academia in the Food processing, Textiles and Chemical sectors were also invited.

The overall methodology as well as strategy for getting information from SEZ units in three sectors, namely, Food Processing, Textiles and Chemicals was discussed in

a special meeting of the LPAC experts. The suggestions given by LPAC members were incorporated and the approach was finalized, including the questionnaire.

Simultaneously, through the internet search, personal meetings with science counselors of a few select countries and attending international conventions connected with SEZs, the data about some developed as well as developing countries was obtained and analysed to determine the International Benchmarks.

Data collected through Questionnaires and personal interviews in the units in the selected SEZs (Noida, Kandla, Surat, Surat Apparel Park, Cochin, Dahej SEZ Ltd, Mundra Port and SEZ Ltd and Madras SEZ) was analyzed qualitatively as well as quantitatively by using different statistical techniques.

The draft report was presented to the LPAC experts in a special meeting held in December 2010 and their suggestions incorporated. Several discussions were also held with DST officials before finalizing the report.

Data Analysis

A. Qualitative (Major Sector-wise Findings)

The Gap analysis of availability and needs of units in SEZs has reflected certain common requirements. A qualitative analysis of the survey conducted on 94 units in 8 SEZs across the country in the states of Uttar Pradesh, Gujarat, Kerala and Tamil Nadu revealed that the availability of even some of the fundamental Infrastructure services is lacking or are not available. This restricts the units to run to their capacities. It is also revealed that the 'Technology Support Services' are not at all available at SEZ level. It is a matter of major concern for most of the units in the SEZs studied, except a few SEZ units owned by MNCs like Hindustan Unilever Limited in Kandla SEZ and Pidilite Industries Ltd in Surat SEZ which are having testing facilities during production process. However R&D is being carried out at their main units/centralized R &D units at Mumbai. Some of the important infrastructure facilities and technology support services available/unavailable in the SEZs visited are tabulated and given at the end of the executive summary.

A Sector-wise summary of the generic requirements in SEZs are given below:

Sector	SEZ Visited	Generic requirements in SEZs
Textiles sector	Kandla, Surat Apparel Park, Cochin, Noida, Mundra Port & SEZ, Madras, and Surat SEZ.	Trained and Skilled Manpower, Common Repair Facilities, Warehouses/Infrastructure, Job Work Units and Computerized Design Centres, Quality of water, Power supply

Chemicals Sector	Kandla, Madras, Noida, Dahej and Surat	Common Repair Facilities, Water availability and quality, Trained manpower, Infrastructural/Community level services
Food Processing Sector	Kandla, Madras, Noida, Cochin	Common Repair Facilities, trained manpower, Water quality, Process waste disposal, Warehousing/Storage facility

With reference to above generic requirements, priority should be given to development of Centralized Repair & Maintenance Centers, Training Institute and Infrastructure/Community level service facilities at SEZ level across all sectors.

B. Quantitative Assessment

The quantitative assessment of present status of availability of Technology Support Services (TSS) in the manufacturing units based on 45 indicators (mapped in the questionnaire) shows an in-house capability in some form or the other but with a low to moderate perception rating (around 3 on a scale of 1-5) given by respondents (generally production & technical team) on most of TSS parameters. *This analysis supports the argument that technology support services need to be upgraded in order to improve trade performance of SEZ units. This trend was prevalent across all the 3 sectors under study.*

Keeping broad objectives of study in mind an attempt was made to further explore evidence of association between TSS & exports. Empirical analysis was conducted on data on TSS rating on basic 45 parameters to validate the theory of an explicit relation between them and an implicit indication of technology being a driving force for enhancing exports and global / international competitiveness of these SEZ units.

Regarding investment affecting exports a study (Tantri, 2010) shows improvement in general profile index of Santacruz and Cochin SEZ's with increase in number of exporting units & total investment.

Since the role of TSS in improving global competitiveness of Indian SEZ has to be clearly deciphered a further review was conducted. Cross-sectional studies conducted by Lacroix and Scheuer (1976), Walker (1979) Soete (1981, 1987) Dosi and Soete (1983), Dosi, Avitt and Soete (1990) have tried to highlight the relation between competitiveness and technology. By regressing a measure of export performance on a technology variable and a set of other variables, it was generally found that result of those studies support the hypothesis of a positive relation between competitiveness and technological activity for large number of industries. *They confirm the importance of technology for trade performance.*

Taking above contextual background of this theory and empirical results of our study we conclude that Indian SEZ units have not reached a threshold level of development in TSS enough to contribute to exports. *We are still struggling with*

development of basic infrastructural and basic support services (as reflected in our qualitative analysis).

Therefore, *a radical improvement in the form of planned and systematic investment in technology, R&D, TSS is the need of the hour* to visualize Indian SEZs rising on the global competitive map in the coming years.

Thus, a combination of “technology, infrastructure and policy” reform is imperative to achieve desired export performance, growth and sustainable global competitiveness of SEZs.

The technical issues affecting Indian SEZs are lack of technological support services, use of low technology for production and other non-technical issues like resistance in land procurement, frequent amendments in the SEZ Act, and inadequate government investment, while in other countries, government is the major investor in developing these zones.

Recommendations

The earlier EPZs now converted to SEZs were established quite some time back when increasing exports was probably the main consideration. These EPZs now converted to SEZs, were provided with readymade sheds which were leased out to the units so that they can move in quickly and start their operation. They were provided with bare minimum infrastructure facilities. After more than 40 years of operation of the units, the needs of the units have also increased and the present situation demands a relook into the infrastructure available vis-à-vis now required, the support services including technology related services and if required changes in the policy, to make the units globally competitive.

In the coming up SEZs we find that the developers are trying to provide the necessary facilities to the type of units coming up in their SEZs. The specific areas have been allocated for different sectors of industry and the infrastructural needs for the sectors are being taken care of. In these SEZs also the technological needs of the industry particularly of the small scale units are not being looked into. Probably, the developers are looking only for large scale units from India & abroad which are self-sufficient in their technological requirements.

We feel that, though some planning has been done by the planners in converting the earlier EPZs into SEZs, the advantages they were earlier getting as EPZs and those which are now been given from time to time, should also be allowed to be availed by them in addition to those provided to the units in the SEZs.

The developers of coming up SEZs must provide infrastructure and technology support services and linkages with universities, R&D laboratories, training and testing facilities depending upon the needs of the units sector-wise and allocate separate space for different sector of industries.

On the basis of primary survey of 8 selected multi-product SEZs in India and secondary survey of SEZs in selected developed and developing countries and analysis

thereof, we recommend the following for the kind consideration of the appropriate authorities to make these SEZs more competitive globally and to attract FDI in technology in the SEZs:

1. Central Repair and Maintenance Centres.
2. Training Centre facility for the workers in the SEZ units for upgrading their skills.
3. For human capital development, arrangements may be made with nearby technical institutes.
4. A technological facilitation centre may be provided in each SEZ to provide better technological support in terms of the needs of the units' w.r.t effective solutions for their problems and information from where they can get the required technological support as well as information about the latest developments and incentive schemes launched by various government departments in their respective sectors.
5. Linkages of SEZs with nearby technical universities and laboratories for their day-to-day needs.
6. To retain the qualified workers / staff good social facilities may be provided.
7. Linking SEZs with existing railway lines to reduce the cost of freight as well as pollution generated by trucks in road transport.
8. Facilities provided in Mega Food Parks and EOUs / EPZs may also be extended to the EPZs which have now been converted into SEZs to make them more competitive.
9. To attract foreign expertise and investment, more fiscal benefits may be considered.

Availability of some of the important Infrastructure Services in the SEZs visited

Infrastructural Facilities in SEZs	MEPZ	KANDLA	NOIDA	COCHIN	DAHEJ	SURAT	SURAT APPAREL PARK	MUNDRA
Availability of continuous power supply	Y	Y	N	Y	Y	Y	Y	UI
Treated Water supply	Y	N	N	Y	Y	Y	Y	UI
Incineration Plant	Y	N	N	Y	N	N	N	Y
Internal Transport Facility	N	N	N	N	N	N	N	N
Residential Facility for Workers	N	N	N	N	N	N	N	UI
Recreation facility	N	N	N	N	N	N	N	
Crutch Facility	Y	N	N	Y	N	N	N	N
Central Storage Facility	Y	N	Y	Y	Y	Y	Y	Y

Availability of some of the 'Technology Support Services' in the SEZs visited

Technology Support Services in SEZs	MEPZ	KANDLA	NOIDA	COCHIN	DAHEJ	SURAT	SURAT Apparel Park	MUNDRA
Common Certified testing labs	N	N	N	N	N	N	N	N
Common Job work Units	N	N	N	N	N	N	N	N
Common Computerized Design Centers	N	N	N	N	N	N	N	N
Common Tool Room & Repair Shop	N	N	N	N	N	N	N	N
Common Testing Facility	N	N	N	N	N	N	N	N
Waste Disposal Facility	Y	N	N	Y	N	N	N	UI
Common Training Centers	N	N	N	N	N	N	N	N
Common Human Resource Development	N	N	N	N	N	N	N	N
Technological Facilitation Centers	N	N	N	N	N	N	N	N
Linkages with technical Universities	N	N	N	N	N	N	N	N

Y=Yes N=No UI=Under Implementation