



Asia-Pacific Research and Training Network on Trade

Working Paper Series, No 66, May 2009

## *Impact of IT related Trade Facilitation Measures on SMEs: An Overview of Indian Experience*

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## *Table of Contents*

I.	Introduction.....	4
II	External Sector and Role of SMEs in India.....	5
III	Evolution in the Use of IT for Cargo Clearance.....	7
III.1	Initiatives by CBEC.....	7
III.2	Initiative by MoCI.....	9
III.3	Initiative by Container Corporation of India (Concor).....	12
III.4	Port Community System (PCS).....	12
III.5	Facilitating Electronic Coordination with Other Agencies.....	12
III.6	Dwell Time.....	13
IV	Survey of SMEs on Impact of Automation.....	16
IV.1	Results from the Field Survey.....	17
IV.2	Case Study of Pithampur, SEZ.....	21
V	Concluding Remarks.....	22
	References.....	25
	Annex 1: Questionnaire for the Survey.....	28
	Annex 2: List of SMEs Interviewed during the Study.....	34
	Annex 3: List of CHAs/Freight Forwarders/Shipping Lines.....	35

### **List of Figure**

Figure 1: External Sector Performance of India.....	5
Figure 2: Share of MSM Enterprises in Indian Exports.....	6
Figure 3: Various Stakeholders in the eTrade Project.....	10
Figure 4: SMEs Awareness on Automation System.....	17
Figure 5: Firm Focus of CHAs, Freight Forwarders and Shipping Agents.....	18
Figure 6: Percentage of Support Received from Government and EDI Service Provider.....	20
Figure 7: Increase of SMEs Participation in Trade since the Launching of Automation of Systems.....	20

### **List of Tables**

Table 1: Definition of MSM Enterprises.....	6
Table 2: Various Trade Automation Initiatives in India.....	7
Table 3 : Dwell Time Data and Select Point in India (Period 2007-08).....	15

## *Executive Summary*

Following widespread economic reforms, India undertook focused and dedicated trade facilitation (TF) initiatives for improving infrastructure and the regulatory regime dealing with its external sector. Information technology (IT) and information technology enabled services (ITES) are prominently placed centre-stage of the trade process reforms. The Central Board of Excise and Customs (CBEC) spearhead the TF initiatives, supplemented by the Information Technology Act (2000) and *eTrade Initiative* of the Ministry of Commerce and Industry (MoCI). Wide coverage of the EDI/ICEGATE system and introduction of RMS are some of the key achievements, apart from new efforts to improve inter-agency connectivity through a centralized server of CBEC. These initiatives have contributed to a reduction in dwell time across ports and at air cargo points. The Systems Unit of the Customs Department periodically releases dwell time improvement details which helps the trading community in a major way. However, as this study and survey shows, the gains are not equally distributed across the trading community.

Despite of 'full' automation of the cargo clearance process, constant personal follow-up at various stages is still needed, which small and medium enterprises with a low volume of trade find it difficult to pursue. This leaves SMEs with very little option but to rely on CHAs, which has its own implications for transaction costs. Moreover, in India some of the key legislations are also not SME friendly, for instance, the customs automation programme does not distinguish between small and large players, despite SMEs contribution in India's trade being consistently above the 30 per cent mark. At present, in certain schemes the requirements are so structured that SMEs are kept out of the purview of the legislation. For instance, the recently introduced accredited clients programme (ACP) focuses on the requirements of only large firms. The criteria for designation of SMEs in India is from Rs 2 million (USD 0.04 millions) to Rs. 100 million (USD 2.25 million) while the minimum turnover required for ACP programme is Rs. 100 million (USD 2.25 million). Even the duty payment criteria required to qualify for ACP is of Rs. 10 million (USD 0.22 million), which barely any SME is able to pay. The CBEC has support programmes for CHAs but if a similar facility can be extended to at least select SMEs, it may probably inspire and encourage other SMEs to directly file their own trade documents and thereby transfer the advantages of automation to SMEs as well.

## *I. Introduction*

In the early nineties, India launched a comprehensive economic liberalization programme which was supplemented by the introduction of various trade facilitation (TF) measures, including efforts to improve cargo clearance, through the introduction of automation-related initiatives. The introduction of the Information Technology Act (2000), which proposes institutional support to ensure commitment for e-governance and provided a major policy impetus for TF. This led to the establishment of a Certificate Authority for accepting electronic signatures and boosted the growth of Information Technology services and IT Enabled Services (ITES) in the trade sector. Further thrust for trade facilitation in India, came through the Budget Speech of the Union Finance Minister (1999-2000) that articulated the necessary political will for launching various TF measures. The Minister announced the setting up of a Task Force on Indirect Taxes chaired by Mr. Vijay Kelkar (Kelkar Committee). The Task Force, in its report, suggested a major automation programme for the customs department. The Information Technology Act 2000 has empowered the Central Board of Excise and Customs (CBEC) to issue digital signature certificates which would make it possible to provide legal validity to the electronic declarations.<sup>1</sup> The Ministry of Finance later in 2004 constituted a Working Group headed by Jayanta Roy on Trade Facilitation (WGTF) to suggest a roadmap for developing a comprehensive action plan for trade facilitation. It suggested evolving specific policy instruments that related to dwell time, greater automation and other issues to improve the efficacy and effectiveness of the Indian trade facilitation measures. Since October 2004, when the WGTF gave its report, the CBEC has implemented several measures.

In the Indian context several studies like Chaturvedi (2007), Taneja (2004) and Sengupta (2003) have assessed the adoption of TF measures on the government's functioning from various stand-points. There are apparently no studies on the implications of TF measures for the private sector, particularly, for small and medium enterprises (SMEs). In 2006, the Committee on Infrastructure chaired by the Prime Minister constituted an Inter-Ministerial Group (IMG) to suggest ways and means for reducing dwell time for cargo clearance<sup>2</sup> but its focus was not on how SMEs or the private sector for that matter cope-up with the new working environment vis. a vis. customs and other agencies. In this context, the debate at the WTO negotiations becomes equally interesting. The European Communities and Switzerland have been raising the issue of equal and transparent treatment for customs brokers, particularly for the new entrants.<sup>3</sup> The EC in another proposal with Mongolia delineated specific criteria for authorised traders such as, an appropriate record of compliance with customs requirements; a system of managing records to allow for necessary controls; financial solvency (including, where appropriate, provision of a sufficient security/guarantee); and an appropriate system of security and safety standards.<sup>4</sup>

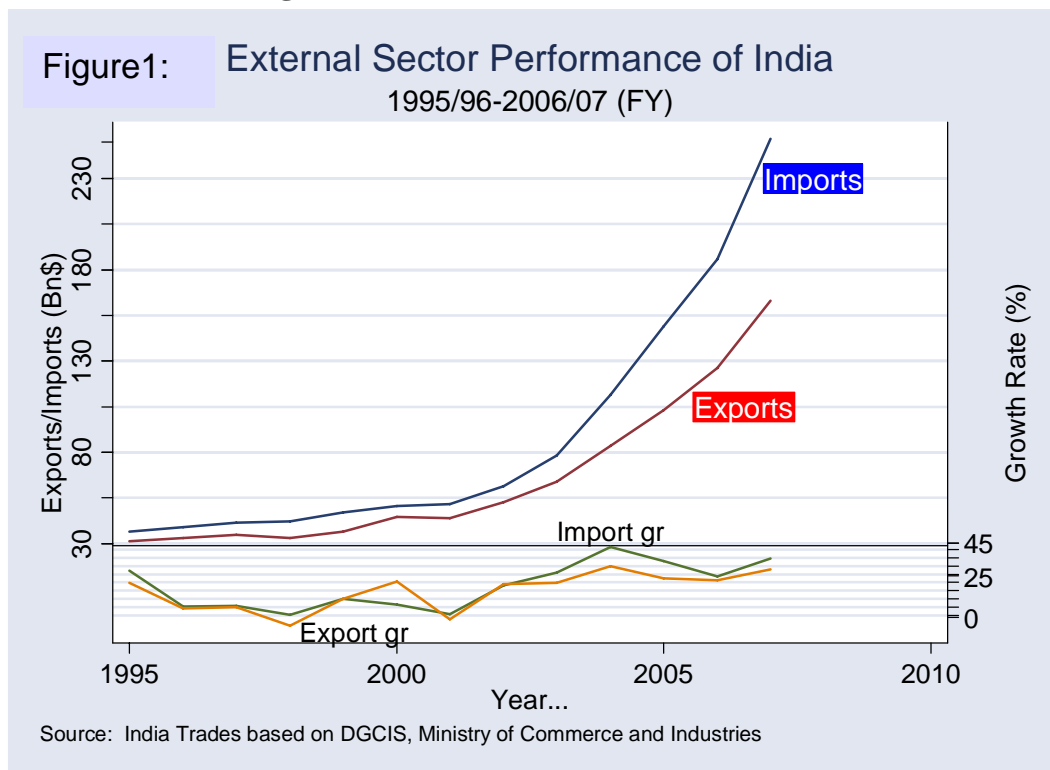
Some of these issues are discussed in the following sections. The second section deals with the role of SMEs in exports while Section III details evolution in the use of IT

for cargo clearance. Section IV examines the impact of IT trade facilitation measures on SMEs. The final section draws the discussion to a conclusive point/culmination.

## II. External Sector and Role of SMEs in India

The Indian economy embarked on a high growth path since the beginning of its reform programme in the early nineties. India's external sector performance has been robust since the beginning of the economic reforms, and received further impetus during the early part of the new millennium. The overall growth performance of the sector was more profound in the present decade as shown in Fig. 1. The external sector expanded at an average rate of 25.6 per cent during 1999-01 over 2005-07 in dollars terms, and at the rate of 20.9 per cent in rupee terms during the same period. The value of merchandise exports reached US \$ 162 billion in 2007-08 (see Fig. 1). Similarly, merchandise imports grew by 24.5 per cent to US \$ 251.5 billion in 2007-08.

**Figure 1: External Sector Performance of India**



In the Indian economy, SMEs play an important role in the country's economic growth and trade. Recently, the Indian government has restructured the ministries dealing with small and medium enterprises by amalgamating the Ministry of Small Scale Industry and the Ministry of Agro and Rural Industries.<sup>5</sup> The new establishment is known as the Ministry of Micro, Small and Medium Enterprises (MMSMEs). As is clear from Table 1, the micro, small and medium enterprises are defined differently for the manufacturing and services sectors under the Micro, Small and Medium Enterprises Act, 2006.

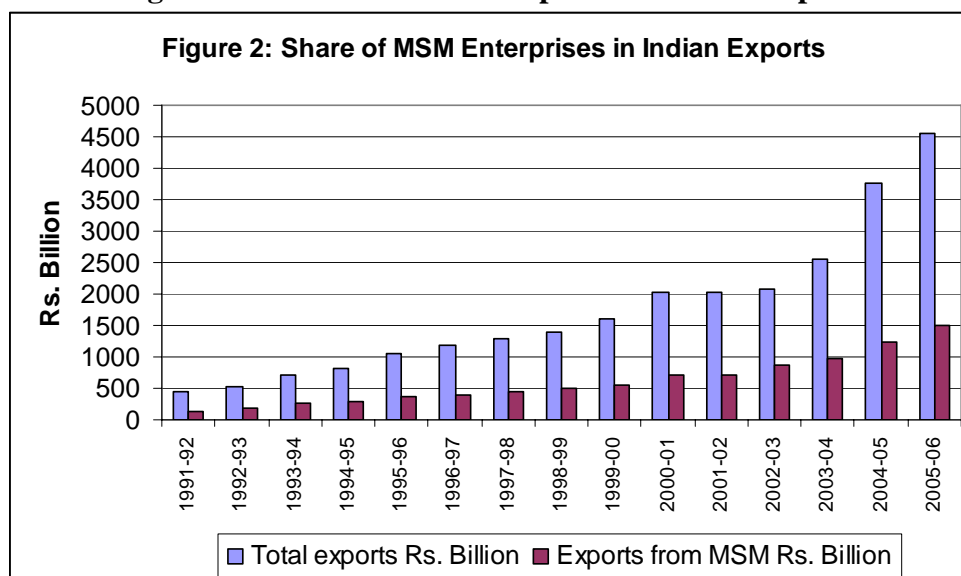
**Table 1: Definition of MSM Enterprises**

	<b>Investment in plant and machinery/equipment (excluding land and building)</b>	
	<b>Manufacturing Enterprises</b>	<b>Service Enterprise</b>
Micro	Up to USD 0.056 million	Up to USD 0.02 million
Small	More than USD 0.056 million and up to USD 1.12 million	More than USD 0.02 million and up to USD 0.45 million
Medium	More than USD 1.12 million and up to USD 2.25 million	More than USD 0.45 million and up to USD 1.12 million

*Source:* Government of India, Ministry of Small Scale Industries, Annual Report (2006-07).

The Micro, Small and Medium Enterprises are playing an important role in the Indian economy. It is estimated that in terms of value, the sector accounts for about 39 per cent of the manufacturing output and around 33 per cent of the total export of the country.<sup>6</sup> It has also shown a higher growth rate compared to the overall industrial sector.<sup>7</sup> A major advantage of the sector is in terms of employment potential, as it is estimated to have 31 million persons spread over 12.8 million enterprises. As is clear from Fig. 2, the MSM enterprises have continuously contributed towards expansion of exports from these units.

**Figure 2: Share of MSM Enterprises in Indian Exports**



*Source:* MoF (2008) and MSME (2007).

Further, MSM enterprises have continued to enjoy exclusive manufacturing rights over several items since the last several years. However, over the period of liberalization the list with exclusive areas for MSMEs has been reduced. Initially, there were more than 800 items listed but now this has been reduced to 21 items which include items such as PVC pipes, rolling shutters, steel furniture, padlocks, laundry soaps and utensils.<sup>8</sup>

### *III. Evolution in the Use of IT for Cargo Clearance*

The Central Board of Excise and Customs (CBEC) is the nodal agency under Ministry of Finance, which is spearheading the customs' automation programme in a major way. The CBEC maintains a comprehensive website which contains detailed information on all the acts, rules, regulations, circulars and CBEC notifications issued from time to time. Over 30,000 pages covering these details are posted on the website. Apart from this, there is a powerful search facility for extracting relevant information made available on the site. The CBEC released a 'Vision and Strategy Document' in 1998, emphasizing commitment to TF through a practical and pragmatic approach. Adoption and application of information communication technology (ICT) is the major plank of the Indian Customs' initiatives to expedite the clearance of import and export cargo and provide a fool-proof paperless system of assessment and clearance. India has launched trade enabling policy reform. In this context, it has initiated various efforts including the setting up of 'ICEGATE', 'eTrade' and 'eBiz' under the National e-governance programme (see Table 2).

**Table 2: Various Trade Automation Initiatives in India**

<b>S.N.</b>	<b>Initiatives</b>	<b>Parent Department</b>	<b>Year</b>	<b>Coverage</b>
1	ICES	CBEC, Ministry of Finance	1992	Specific customs locations
2	ICEGATE	CBEC, Ministry of Finance	1995	Integrated customs network
3	eTrade	Ministry of Commerce and Industry	1997	Compatibility between various trade agencies
4	ACP/RMS	CBEC, Ministry of Finance	2005	Compliant large traders
5	PCS	Indian Port Association, Ministry of Shipping	2008	Integrates all the major ports and all the major actors at the port

*Source:* Compiled by Author.

#### **III.1 Initiatives by CBEC**

The CBEC has received approval in December 2007 from the Cabinet Committee on Economic Affairs (CCEA) for a major IT consolidation programme. This approval of USD 134 million is for the creation of a consolidated computing infrastructure for Customs, Central Excise and Service Tax applications, which would lead to the establishment of a centralized server, instead of separate servers for each of the automated centres.<sup>9</sup> At present there are 40 automated centres. The scheme envisages the

establishment of central servers and storage area networks along with disaster recovery infrastructure with the capacity to handle all transactions relating to customs, central excise, service tax and a data warehouse. The benefits of the scheme include better service levels to trade and would also help CBEC in maintaining a more comprehensive information system. This project would be implemented by December 2009. The new system will integrate different agencies for example, the Directorate General of Foreign Trade (DGFT), Directorate General of Commercial Intelligence and Statistics (DGCIS), Container Corporation of India (CONCOR), Central Board of Excise and Customs, carriers and custodians for ports/ airports/ ICD's, etc.

#### Indian Customs EDI System (ICES)

The Custom's automation programme was initiated in 1995 with the launching of the Indian Customs EDI system (ICES) at Delhi and later (1996-97) was extended, as a stand alone facility at 23 locations. At present, it is functioning at 40 customs' locations covering over 85 per cent of country's foreign trade. These include customs stations at various airports, sea ports, land customs stations and Inland Clearance Depots (ICDs). At the automated locations, 96 per cent of the export and 97 per cent of the import documentation is processed (submitted and approved) electronically. According to the data provided by CBEC more than 6.5 million documents are being processed annually on the system which constitutes almost 85 per cent of the total trade transactions. There are several novel features which have been introduced as a part of the ICES programme. For instance, the filing of a separate drawback claim by exporters is not required as the drawback claim is credited to the exporter's bank account anywhere in India.

#### Indian Customs and Excise Electronic Commerce/Electronic Data Interchange Gateway (ICEGATE)

CBEC further took steps to improve connectivity and achieve compatibility within the custom's stand alone locations by launching ICEGATE in 2002. This facilitates remote filing of import and export declarations by the importer/exporter/ CHA through the ICEGATE portal.<sup>10</sup> On an average, about 18000 to 20000, import and export declarations are being filed daily using the ICEGATE facility. All the airlines are filing their import and export manifests using this system. Further, Consol manifests are also being filed by forwarders. The facility of 'round the clock' electronic filing of custom's documents for the clearance of goods is now available to 40 custom's EDI locations.

There are also options for a document tracking system, which enables users to know the latest status of their document on the internet. CBEC has also launched E payment and online registration for Intellectual Property rights through this portal. Exporter/ Importer and CHA can also check their IEC and DEPB license status on this portal. The release advice and IGM data is transferred from one custom's house to another using this facility. The inter-agency data is automatically transferred by the system to the concerned agency. A round the clock helpdesk is also functional for facilitation of ICEGATE users. In order to ensure privacy, authenticity, integrity and reliability of the transactions, CBEC has introduced the public key infrastructure (PKI)



technology popularly called the digital signature. The Licensed Certifying Authority (iCERT), established by CBEC makes available PKI to its trading partners and departmental staff. The CBEC has taken steps for the setting up of a Customs Data Warehouse (CDW) to store data which may be made available in a standard format for any enquiry/investigation or analysis, reporting, etc.

#### Accredited Clients Programme (ACP)

In 2005, CBEC initiated a major programme to bring in a balance between trade facilitation and compliance which was intended to be achieved through voluntary compliance. As a part of the programme, the CBEC launched a Risk Management System (RMS) so as to enable self assessment of consignments which are of low risk. The RMS is fully operational for imports at 23 major custom's locations but for exports it would be operationalised by June 2009.<sup>11</sup> This initiative offers a greater measure of facilitation to the credible traders and will also contribute towards reduction in the dwell time of cargo and thus to transaction cost. With the introduction of RMS, the practice of routine assessment, concurrent audit and examination of almost all bills of entry is discontinued and the focus is now on quality assessment, examination and post clearance audit of the selected bills. This is helping the Customs Department to utilize its resources more effectively. The purpose of RMS is to facilitate a large number of bills of entry which are perceived to be compliant with the Customs' laws and regulations. The self-assessed bills of entries will be processed by the system to evaluate the risk if any. Duty is calculated and the duty paying document would be generated by ICES.

In the Accredited Clients Programme (ACP), which works through RMS, importers with an exemplary compliance record are given assured facilitation. The qualifying criteria that are specified under the ACP programme are namely: (a) the value of imported goods should be above Rs. 100 million (USD 2 million) in a financial year or customs' duty paid in a financial year should be more than Rs 10 million (USD 0.20 million); (b) that there are atleast 25 bills of entry in a financial year; (c) no cases booked for tax violation during last 3 years with the department; and (d) the company should have a reliable system of record keeping and internal controls. The implementation of ACP scheme is part of India's commitment towards the International Convention on Simplification and Harmonisation of Customs Procedures, popularly known as Revised Kyoto Convention, Standard 3.32 which provides special Customs' clearance procedures for authorized persons who meet the criteria specified by the respective Customs.

However, there are certain unresolved issues about this scheme in the case of SMEs. The requirements are much too high for micro and small enterprises to meet, and the expectations on duty paid are very difficult to attain even for medium enterprises. The SME enterprises therefore are kept out of the purview of this scheme. It is given only to importers and CHAs cannot take part in ACP, although they can file on behalf of ACP qualified importers. As of now, ACP status is given to 256 companies only.

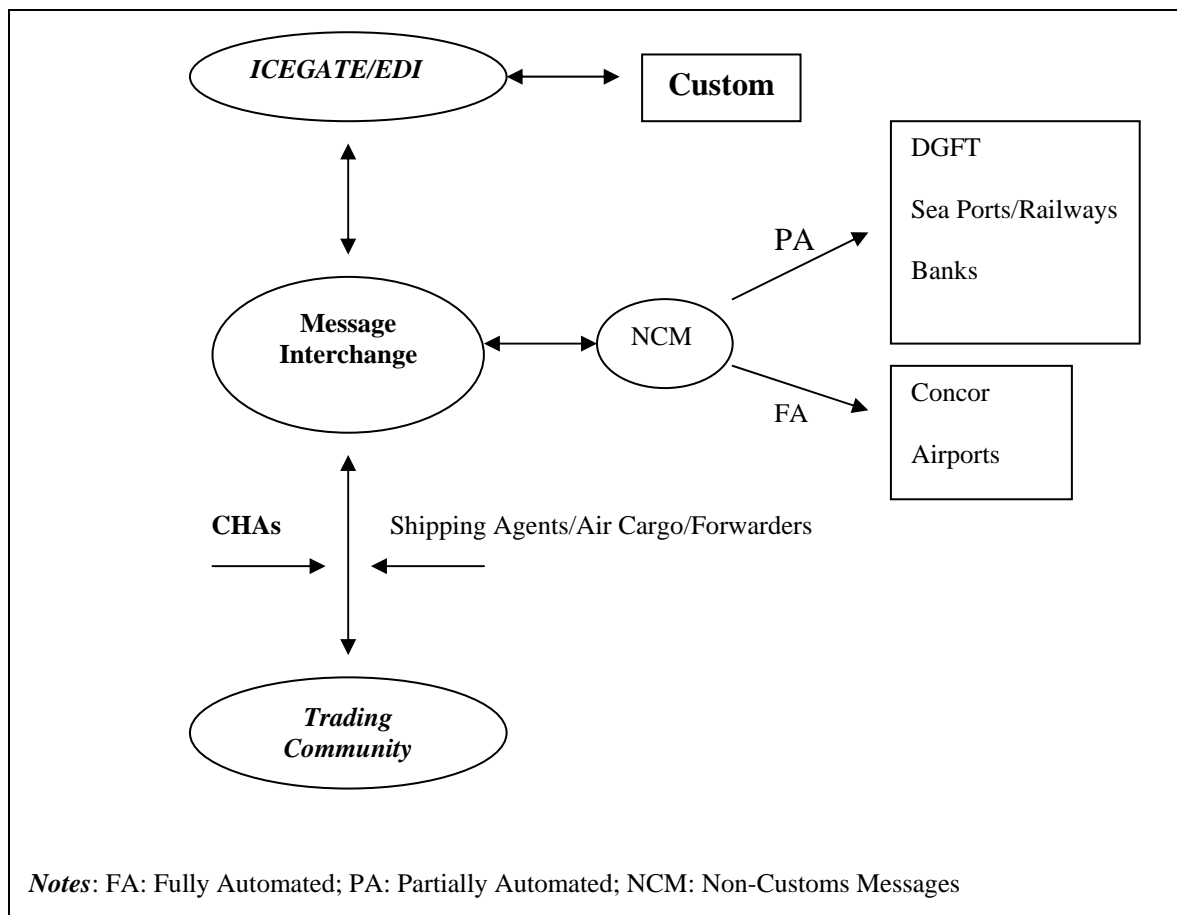
### III.2 Initiative by MoCI

#### eTrade Initiative

It was felt however, that apart from automation of customs, other agencies involved in the trade process should also partake of the automation initiatives. In this context, the Ministry of Commerce and Industry (MoCI) has launched an 'eTrade' initiative which is a special project for coordinating various trade-related automation programmes. This initiative was launched in 1997 on a pilot basis, focusing on only the auto sector in response to the problems generated by a lack of compatibility between different value added network operators (VAN) being used by large auto players to source inputs from component suppliers that are largely SMEs. The *eTrade initiative* could provide a common platform to all the operators. However, after the pilot phase, the project was extended in 2003 with a larger mandate. This included inter-agency coordination for facilitating e-filing and e-payment as per the international standards and if required, to undertake process re-engineering for obtaining inter-agency message formats in a compatible manner.

The objective is to provide an electronic interface between various trade regulatory and facilitating agencies and the trading community so as to facilitate delivery of better services. The regulatory and facilitating agencies in this include several actors (as mentioned in Fig. 3) like customs, DGFT, RBI and export promotion organizations (EPOs) There are transport-related agencies involved like Indian Railways, various airlines, Airport Authority of India (AAI), Indian Port Authority (IPA), CONCOR and Directorate General of Commercial Intelligence and Statistics (DGCI&S). Then are the CHAs and trading community members who are also being served by the *eTrade* project. The following major areas are being addressed as a part of this project:

**Figure 3: Various Stakeholders in the eTrade Project**



*Process Reengineering:* A process re-engineering committee was formed by this department, which submitted its report for streamlining the processes leading to effective and efficient information flow between customs, AAI, ports, DGFT, CONCOR and their associated agencies. The *Report* formed the basis for adoption and implementation by participating departments. The Airport Authority of India has also established an electronic data interchange (EDI) facility at a cost of Rs. 50 million (USD 1.12 million), to simplify the cargo clearance procedures.<sup>12</sup> The site can handle 5,000 queries simultaneously. The main net transaction hub for this interchange is Delhi, which in turn is linked to four air cargo terminals - Delhi, Mumbai, Chennai and Kolkata. To block out viruses and hackers, AAI has also installed special security software. The gateway airport cargo terminals together are capable of handling one million tonnes of import/export/transit cargo annually. The present capacity utilization is about 75-80 per cent.<sup>13</sup>

*Services Covered:* Three main categories of services covered under the project include (i) electronic filing and clearance of export/import documents by participating agencies (i.e., customs, ports, airports, CONCOR, DGFT, exporters, importers, agents etc); (ii) e-payment of duties and charges (handling/freight etc. by ports, airports, CONCOR, DGFT, customs; (iii) electronic exchange of documents between community partners i.e. customs, ports, airports, DGFT, CONCOR, banks, agents, exporters, importers. etc.

*Standards:* The UN/EDIFACT - the United Nations Centre for Trade Facilitation and Electronic Business, standards have been declared as the national standards in 1996 for EDI developments in India. The message development groups were constituted for customs, ports, airports, banking and the private sector. In 1995, the article numbering and bar coding institutions, GS1 India was also established. Earlier, it was known as the EAN India. As per UN/CEFACT recommendations, a sub committee was formed to work out the UN/LOCODE (for global locations). The government is also planning to extend the advantages of these standards to the wider trade community, including small and medium size enterprises, by introducing new and integrated technologies such as UNeDocs.<sup>14</sup>

There are several salient achievements of this initiative. Some of these include speedy electronic issuance of licenses using digital signature and electronic payment, operationalization of customs electronic interface with the custodian at Delhi airport for import cycle, Centralised Port Community System for major sea ports. The *eTrade* meetings are also attended by traders and CHAs who bring up the various impediments they face due to a lack of coordination among various agencies. Minutes of these meetings<sup>15</sup> indicate that due to the participation of senior officers of the MoCI, several operational limitations are addressed in a time bound manner. This project was launched as a Mission Mode Project, with an advisory committee, headed by the Commerce Secretary and a project review mechanism to be undertaken periodically by the Cabinet Secretary to the Government of India. With this high-level participation, any budgetary constraints and inter-agency turf battles could be overcome with much lesser effort. The project in phase I had covered about 80 per cent of India's foreign trade and 35 customs

points. In the phase II (to be launched in December 2008) when another 30 customs points would be added, the trade coverage would increase to 92 per cent.<sup>16</sup>

### III.3 Initiative by Container Corporation of India (Concor)

In cargo clearance, the IT programme of the public undertaking, Container Corporation of India Limited (Concor) also plays an important role. The public sector enterprise, Concor under the Ministry of Railways, was established in 1988-89. Initially, it had a stand alone automation programme which was consolidated over a decade with a major effort only in the year 2000.<sup>17</sup> Subsequently, in 2001, Concor established a centralized computer system and also enhanced its VSAT based network, which now covers 61 locations. Concor has also introduced an electronic filing of documents by commercial systems at select locations which enable customers to file their documents electronically from their own offices (facility available only for containers in the ICD). Concor has a wide network of 49 inland container depots (ICD) and 9 domestic container terminals with more than 8,500 wagons, that is, over 150 rakes. Concor had also formulated a strategic alliance for air cargo and plans to start five air freight stations in the next 3-4 months. The firm also expects to finalize a strategic alliance for shipping by the end of March 2009.

Among the severe criticisms that Concor has faced is that regarding compatibility with other border agencies particularly, customs. In order to address this, Concor has established seven regional servers for better connectivity with EDI of customs. The data is being used online in processing various export-import functionalities. They have also initiated a joint trial for ensuring programme compatibility at one of the major locations viz. Dadari.<sup>18</sup> One of the major achievements of Concor is to have set in place a centralized pre-deposit account system (PDA) where customers can do transactions with Concor at various ICDs with just one PDA account. Customers can find out the available balance in his PDA at any of the terminals online.

### III. 4 Port Community System (PCS)

In November 2008, the Indian Port Association, an agency under Ministry of Shipping, Road Transport & Highways, Government of India, has launched a centralized Port Community System, that covers all the major ports, and involves all the stakeholders like exporters, importers, custom house agents, shipping lines, shipping agents, stevedores, transport operators, banks, ports, terminal operators, customs, and other organizations / companies in the maritime logistics chain.<sup>19</sup> The proposed system will facilitate exchange of vital information needed by each member from other members of the community to perform their functions effectively and to improve the overall efficiency of maritime trade and the transportation cycle.

### III.5 Facilitating Electronic Coordination with Other Agencies

Coordination between the automation programme of the customs department with that of other agencies continues to remain a major hurdle for the trading community. There are several agencies involved at the border and each one of them is at a different level of automation and at times, a completely different format for information filing is required. Moreover, to further add to the prevailing confusion, conversion packages are

also missing during most of the transactions. The digital divide between public and private operators is very prominently visible. For instance, in the air sector, the Airport Authority of India (AAI) is at a very low level of automation, while the new private airports like Delhi International Airport Limited (DIAL), Mumbai International Airport Limited (MIAL), Bangalore International Airport Limited (BIAL), Hyderabad; International Airport Limited (HIAL) are highly tech-savvy.

Most of the Indian trade (over 90 per cent) is routed through 12 major ports and 139 minor or intermediate ports. The 12 major ports are managed by the Port Trust of India (central government) and they handle 90 per cent of the all-India port throughput. Most of the ports in India are administratively with Port Authority of India and there are very few private ports but each port possess its own software and has in place its own procedures for cargo clearance. With the growing practice of appointing operators for managing Container Freight Stations (CFSs),<sup>20</sup> the number of people in the cargo clearance chain has further expanded, for instance, the Jawaharlal Nehru Port Trust (JNPT) has 39 CFS while Chennai port has 30 CFS. Then there are carriers of cargo like Main Line Operators (MLOs), shipping lines and steamer agents who have to file export general manifest (EGM) and import general manifest (IGM). The Inland Container Depot (ICD)<sup>21</sup> operators and Central Warehouse Corporation are also key actors. It is also important to have e-compatibility of banks which otherwise may create major challenges for the trading community in the process of cargo clearance. The CBEC has changed the policy of 'one port-one bank' to a more accommodative policy allowing atleast two-three banks at a given location. There are atleast four banks designated at a particular location for e-payments. The Principal Chief Controller of Accounts (PCCA) of the customs department is considering a proposal for identifying 14 banks for which e-payment may be made from any location and through any of the identified banks.

The mismatch of software programmes between the Customs Department and DGFT has created a lot of problems for the traders. The bill of entry and shipping bill where goods are imported or exported under any export promotion scheme requires details of licenses issued by DGFT, to be mentioned in the electronic format. Since DGFT does not issue electronic licenses, this remains a major limitation of the EDI facility. Since 1 September, 2005, DGFT launched on a trial basis, the issuing of licenses for EDI shipping bills with a digital signature. Initially the customs EDI was not able to recognize the entries in the abstract and descriptive form.<sup>22</sup> However, this was resolved in early 2007, when the scheme was officially launched though there are still a few non-EDI ports where DEPB shipping bills are to be filed manually such as Raxaul Land Customs Station and Petrapole Land Customs Station. The Customs Department and DGFT are currently working on electronic transfer of Export Promotion Capital Goods Scheme (EPCG) licenses. A lot of matters are still pending in the issuance of advance licenses between the two agencies which problem again relates to software compatibility.

### III.6 Dwell Time

In a submission to the Inter-Ministerial Group (IMG) on Customs Procedures and Functioning of Container Freight Stations and Ports, the Ministry of Shipping suggested that the EDI facility for filing of import general manifest and export general manifest at

the customs should be extended to all holidays to facilitate easy transaction of trade.<sup>23</sup> They also suggested that customs, at most of the ICDs, do not have provisions for accepting EDI. The customs should expedite implementation of EDI facility at all ICDs and ports where the facilities are yet not available. The members of the trading community have pointed out to the IMG that the customs automation programme should consider e-payment of duties and should encourage importers to file prior bills of entry and electronic transfer of licenses from DGFT. This led the IMG to recommend that the customs message exchange with ports, airports, Container Freight Stations (CFSs), Container Corporation of India Ltd. (CONCOR), banks and DGFT should be implemented under the extended automation programme while the manual system should be discontinued in a time bound manner. No time frame was suggested. There was a detailed discussion at the IMG about the e-payment of duties and though the deadline suggested was 31 March, 2006. The trading community however, suggests that it is still not in place.<sup>24</sup> In the context of extending the working hours at major ports and ICDs, the IMG proposed/iterated that it is important to have functional staff also made available from other agencies like port, banking, security, customs house agents, shipping if the CBEC decides to extend customs facilities. There is growing attention being paid by the CBEC to cargo dwell time.

As is clear from Table 3, it takes a total dwell time of 345 hours at Nhava Sheva, Mumbai Port and 320 hours at Chennai Customs and 165 hours at ACC, Sahar, Mumbai. The customs' procedures comprising of steps 3 and 6 namely, Filing of Bill of Entry to Assessment and Goods Registration to Out of Charge accounts for 7.31 per cent of this total time at Nhava Sheva 22.42 per cent at ACC, Sahar and 21.64 per cent at Chennai. This huge difference in performance at various customs stations is due to various factors. While performance at Nhava Sheva has improved tremendously due to the introduction of RMS, as a result of which much lesser amount of cargo is to be examined, at Sahar (which is an air cargo point) it takes longer as a larger quantity of consignment is to be physical examined which leads to the delay. The nature of goods at Sahar is also a contributory factor as it involves high value critical items for which no customs officer would like to take risk.<sup>25</sup> Another important reason for delay is the limited capacity of the customs server. As more and more people are using ICEGATE, people generally file their documents in night (at that time pressure is much lesser) and prefer to wait for the following day clearance. This contributes to higher dwell time. The number of customs' officials is also an issue in this context.

**Table 3 : Dwell Time Data and Select Point in India (Period 2007-08)**

SI. No.	Stages	Actors and Automation		ACC, Sahar, Mumbai		Chennai Customs		Nhava Sheva (Mumbai)	
		Actors Involved	Status of Automation	Time Taken in hrs	% of total dwell time	Time Taken in hrs	% of total dwell time	Time Taken in hrs	% of total dwell time
1	IGM to Entry inwards	Carrier	Filing of IGM to customs automated	0*	0*	0*	0*	0*	0*
2	Entry inwards to Submission of Bill of Entry by Importer	Importer/ CHA	Automated	79.05	47.78	163.45	51.01	181.52	52.61
3	Filing of B/E to Assessment	Customs	Automated	23.41	14.15	49.80	15.54	23.21	6.73
4	Assessment to Payment of Duty	Importer/ CHA	Manual and automated option	48.13	29.09	65.45	20.43	90.10	26.12
5	Payment of Duty to Goods Registration	Importer/ CHA/Bank/Oc troi	Partially Automated	1.18	0.71	22.20	6.93	48.17	13.96
6	Goods Registration to Out of Charge	Customs	Examination is a physical exercise but recording it is an automated process	13.68	8.27	19.54	6.10	2.00	0.58
7	Entry inwards to Out of Charge	Port/customs/	Not automated	165.45	100.00	320.44	100.00	345.00	100.00

\* Earlier IGM used to be filed after arrival of the vessel and only then B/E could be filed. This was adding to the dwell time. As per amendment to Section 30 in 2003, IGM is now required to be filed before the arrival of the vessel. Hence, the dwell time attributable to IGM filing has become nil.

Source: Based on personal communication of the author with the Systems Unit of Customs Department.

There is a considerable degree of difference in the dwell time taken by various procedures. For example, the time taken for filling B/E to assessment has been 10.1 % of the total dwell time in Nhava Sheva, whereas the same procedure takes more than double the time in Chennai in terms of percentage distribution of dwell time. There are noticeable variations seen among the three major ports in terms of the relative time taken for payment of duty to goods registration. The level of deviation varies from 5.8 per cent in Mumbai to 20.7 per cent in Chennai. In this category, the variations noticed between Mumbai and Nhava Sheva have been significant despite the fact that both of them belong to the same province with close geographical proximity. The overall position of the three ports indicates that a bulk of the dwell time is taken by the entry inwards to submission of

bill of entry of importer. While the relative dwell time taken by payments of duty to goods registration and filling of B/E to assessment is almost similar and the relative dwell time taken by assessment to payment of duty is relatively larger than the other two, the time taken by goods registration to out of charge is the least among all categories. The process involving customs shares close to one fifth of the total dwell time (i.e., filling of B/E to assessment and goods registration to out of charge).

It is increasingly being realized that there is a need for further simplification of the import general manifest filing system. Accordingly instructions for correct and complete filing of import manifest with necessary flexibility for amendments have been issued. This would provide seamless transfer of import data on cargo for enabling expeditious clearance of cargo by customs and other authorities.

#### *IV. Survey of SMEs on Impact of Automation*

As a part of the current study, we undertook a survey of small and medium enterprises based in collaboration with *SME Times*, a major weekly newspaper for SME enterprises. We approached 30 SME firms in New Delhi with a questionnaire (Annex 1) out of which 15 firms responded and we conducted interviews in the case of seven firms for further follow up. Almost all of them were found to be processing their trade documents through CHAs, on account of complexity despite partial automation. Many of them mentioned that customs and other trade related agencies are based in different locations which is also challenging as firms have to go to various offices with their papers.

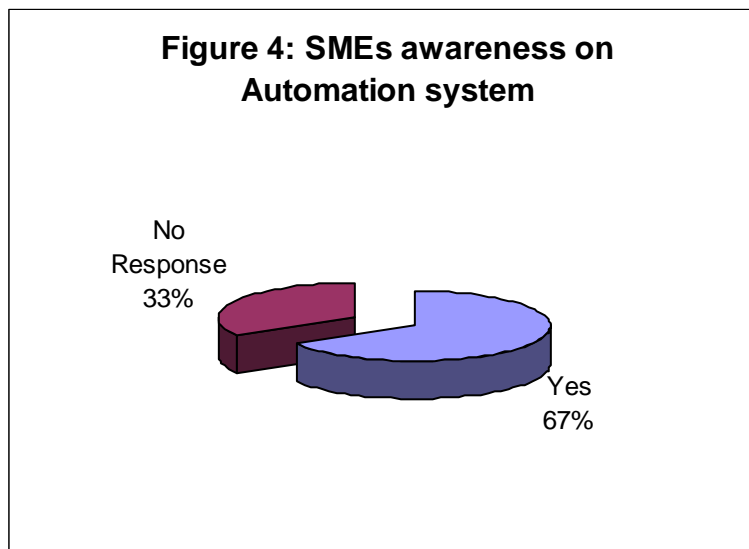
At this stage, we adopted a two-pronged strategy to capture the missing parts of our story. We thought of covering CHAs as well in this survey. We interviewed 11 CHAs based in Delhi and Mumbai, the two major trade centres in India. When various cargo clearance units are located in different places then coordination is a major challenge. In this study, we interview a few Delhi-based firms apart from undertaking an effort of assess whether getting all the services at one place through the policy of Special Economic Zones (SEZ) has helped traders in terms of improving their access to the cargo clearance system. In India, the MoCI initiated a major programme of promoting SEZ across the country for encouraging exports through a legislation enacted in 2006.<sup>26</sup> The SEZ units are exempt from all taxes like customs duty, excise duty, Central Sales tax, State VAT, and Income Tax and have all cargo clearance facilities in one place. All permissions and approvals required to set up a unit are given under a 'Single Window Clearance' scheme. Although 531 SEZ unit have been formally approved, only 260 SEZs are operational. For this study, we chose India's first green field SEZ, located at Pithampur in the central Indian province of Madhya Pradesh where we interviewed 16 SME firms. Thus, in total this study covers 23 SMEs and 11 CHAs apart from key trade agencies like Concor, NIC, Customs (Systems), etc (Annex 2 and 3).



## IV.1 Results from the Field Survey

The survey focused on SME participation in the automation initiative of the Customs Department. We had initially contacted 46 SMEs out of which 31 responded and we interviewed 23. It is worth noting that almost all the firms (Annex 2) whom we contacted directly have denied direct filing of customs documents. They continue to depend on the customs house agents despite the fact that some of them were aware of the launching of initiatives like ICEGATE. According to 67 per cent of the SMEs interviewed, there exists an awareness of the advantages of EDI and even of the risk management system but they feel that they can not handle the system and only CHAs can do it (Fig. 4). One of the reasons given by most was the complication inherent in the process as it was only partially computerized and automated. This required the carrying of papers to various offices for clearance and the release of cargo. When we enquired further most of them felt that classification of goods and the time required for the same are two important challenges to SMEs for which reason they would prefer to outsource work to CHAs. In their view, the work at customs and cargo clearance is largely something that only CHAs can handle.

**Figure 4: SMEs Awareness on Automation System**



Many of them are of the opinion that, the cost of operations has increased since the introduction of various automation initiatives. The CHAs charge private companies an additional amount for electronic filing on the basis of per document filed. In the survey, only 33 per cent of SMEs were not aware of the new changes introduced in the cargo clearance. Most of the SMEs were of the view that it is not economical for them to file their own documents as it requires specialised knowledge and is time consuming.

One of the SME in New Delhi pointed out that very little value is attached to the importance of SMEs in the trade sector despite their high contribution. Thus while the recent introduction of an accredited clients programme (ACP) has improved dwell time and has quickened the cargo clearance process, somehow the provisions of ACP keep SMEs out of its purview. The ACP programme is structured more in favour of large

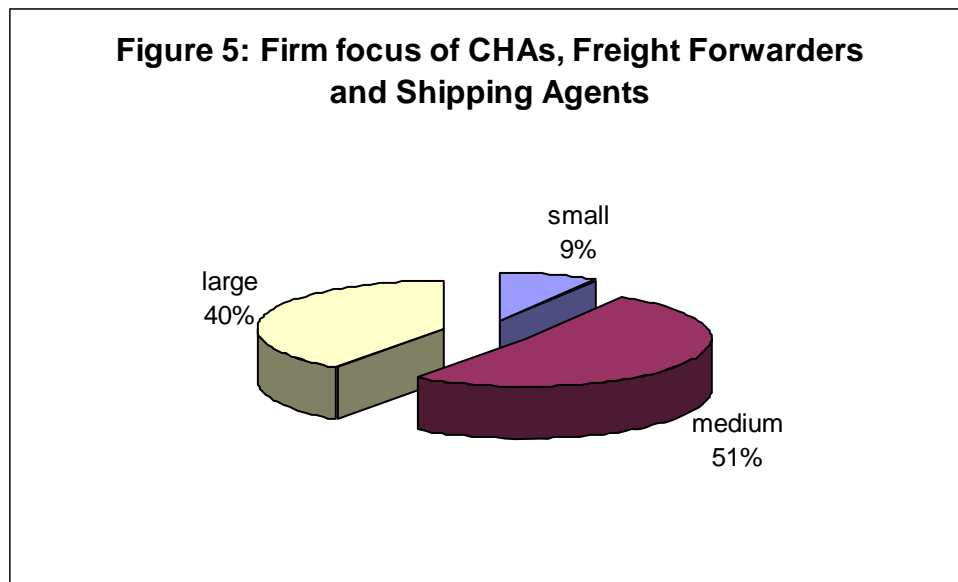
companies whose value of imported goods is more than Rs. 100 million (USD 2.25 million) USD 2.25 million while the maximum limit to qualify in the SME (MSM) category is Rs. 100 million (USD 2.25 million) or payment of customs duty of more than Rs. 10 million (USD 0.22 million). Hardly any of the SMEs attain in even two consecutive financial years.

It is becoming increasingly evident that the automation drive under the trade facilitation programme may not be the sole panacea for the salvation of the trading community. It needs to be supplemented by greater synchronization of various capacity building plans and programmes. There are various efforts to expose small and medium enterprises to different facets of e-trade. In India, ITC/UNCTAD and WTO launched the e-Trade Bridge Programme (ETB) for SMEs to help bridge the digital divide by empowering SME managers to make rational decisions on where and when they should be using the digital tools for building competitiveness. This was launched in 2002. Some of the SMEs who were interviewed for this study suggested that there is no link between the eTrade project launched by the Ministry of Commerce and the ETB. Moreover, the attention of National Informatics Centre is also particularly needed to be drawn to the requirements of the SMEs, as they are responsible for a sizable share of India's exports.

CHA Survey: Focus on SMEs

Most of the CHAs, freight forwarders and shipping agents covered in the survey have predominant dealings with large and medium sized firms while there are very few who do not deal with large firms but focus on medium and small firms. As the Figure 5 shows 40 per cent have an exclusive focus on large firms, 51 per cent on medium-sized firms which form the focus of the current study and 9 per cent deal with small-sized companies. Due to enhanced transactions, it is not a matter of surprise that nearly all of them lodge customs declarations almost everyday.

**Figure 5: Firm Focus of CHAs, Freight Forwarders and Shipping Agents**



In India, 96 per cent of import documents and 94 per cent of export documents are filed through the EDI system. According to the CHAs and others, most of their clients including SMEs are aware of the possibility of lodging customs declaration electronically while a sizeable number of the companies whom we interviewed have denied any knowledge of increasing automation of trade procedures. The lodgment fee does not depend on the size of the firm or industry but on the size of shipment.

#### CHA Survey: Level of Automation

In the questionnaire, we asked CHAs to rate India's trade automation programme. It is interesting to note that most of the CHAs have placed the level of automation of the export-import procedures in the range of 50 per cent to 100 per cent. During further interviews, they explained that there are several agencies which are either not automatised or their programmes are not compatible with customs. These agencies include Plant & Quarantine Office (PQO), Central Food Laboratories, Additional Drug Controller (ADC), WLRO, Textile Committee, respective municipal corporations, stamp authorities, Directorate General Foreign Trade (DGFT) and APEDA. As indicated in the response to question B.1 for exports minimum 5 documents are required and for imports minimum 7 documents are required.

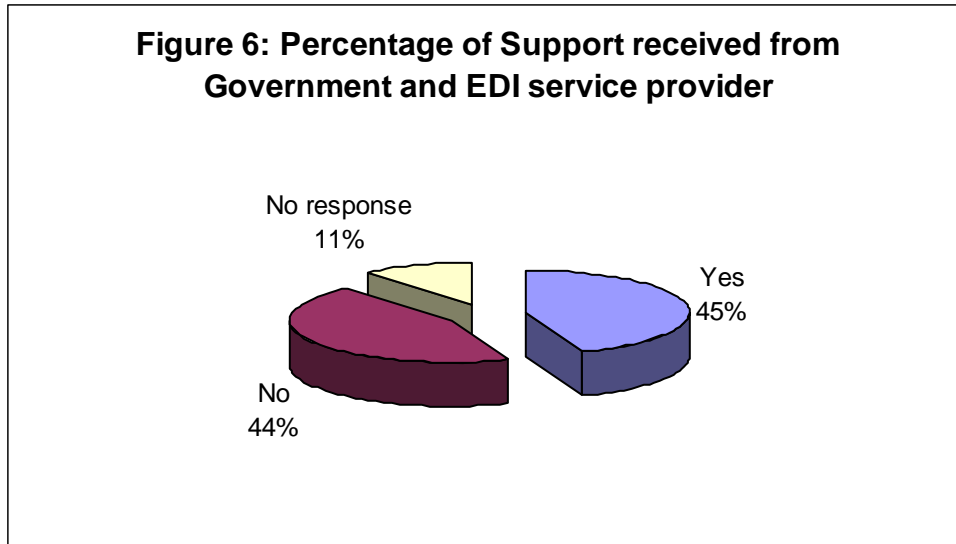
Most of the CHAs have indicated that there is almost no electronic linkage between these agencies. A better coordination between them would help to streamline and also avoid a duplication of work. The DGFT issues import licenses under various schemes such as Export Promotion Capital Goods Scheme (EPCG), Duty Free Credit Entitlement Certificate (DFCEC), Standard Financial Information Structure (SFIS) and Duty Entitlement Pass Book Scheme (DEPB), etc. which may be made available for online debit. This would reduce the threat of forged licenses and may also help in communicating necessary instructions for shipments and import at the ports. If complete automation is achieved, most of the respondents have suggested that almost all the agencies would benefit. There would be greater transparency, better and faster communication and speedy movement of cargo clearance.

#### CHA Survey: Cost of Automation

Most of the CHAs and shipping lines have invested in organising their staff (training and IT orientation), adding additional equipments and establishing high end connectivity at their offices. Most of the CHAs have their own work stations from where they can expedite declarations electronically and can also track cargo movements and communicate with their clients. As is evident from their response to question C.1 in the survey, almost all of them have their own IT systems for trade transactions which include computer with internet connectivity and the usual software required for necessary compatibility. However, most of them are silent on the cost of these additions. In the transition phase, most of the CHAs faced the following problems namely: (a) changing the mindset of work force, (b) frequent break down in electric supply, (c) break down of customs server and interruptions in electronic connectivity. Some of the CHAs also stated that there are instances when customs servers have crashed for a longer period of time affecting huge transactions. However, 45 per cent of CHAs have pointed out that they have received support from EDI service providers and government agencies in terms of

software (while hardware was their own expenditure) at the offices of CHAs. The support was also for training of personnel and for frequent updates on softwares, while 44 per cent of CHAs have mentioned that there is no support from the government. Almost 11 per cent have not responded (Fig.6). It seems that the leading CHAs in 1995 got the initial support for automation and connectivity while the late comers in the profession were extended only free software for filing of documents. This may be one explanation for the divided opinion among CHAs.

**Figure 6: Percentage of Support Received from Government and EDI Service Provider**

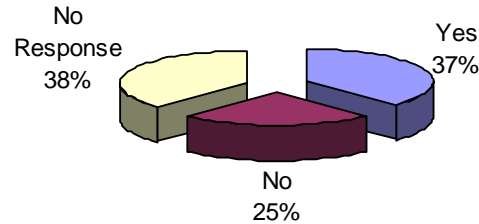


CHA Survey: Impact on SMEs

There is great convergence in the views of almost all the CHAs and shipping line agents that automation has increased the participation of SMEs in the trade process, although it seems that CHAs have only been marginally affected (–if at all–) as most SMEs still rely on CHA services. In the survey, most of the CHAs did not respond to the section that related to benefits and cost of automation. However, 37 per cent admitted that SMEs are positively affected by this programme, though 25 per cent have negated this view (Fig.7).

**Figure 7: Increase of SMEs Participation in Trade since the Launching of Automation of Systems**

**Figure 7: Increase in SMEs  
Participation in Trade since the  
launching of Automation of Systems**



#### IV.2 Case Study of Pithampur, SEZ

In a special economic zone, it is expected that trade facilitating services are structured with utmost proficiency and in such a way that the traders do not have to approach to different agencies for necessary clearances. It was with this objective that we thought of undertaking a special case study of India's first Greenfield SEZ at Pithampur in Madhya Pradesh.

The Pithampur SEZ is spread over 17 acres of land given by MPAKVN on a land lease for 99 years from 1993 to 2092.<sup>27</sup> It is 45 km from Indore and does not have a rail linked ICD. It has a road bridging to Ratlam which provides linkage with major ports like Mumbai. There are almost 72 firms exporting Rs. 9540 million (USD 214 million), worth of material from Pithampur in 2007-08. The growing economic contribution from this area can be assessed by the fact that the Container Corporation of India's Pithampur inland container depot (ICD), has shown an increase in the throughput from 25,568 TEUs in 2005-06 to 27,384 TEUs in 2006-07 and the air cargo exports crossed the 5,000-tonne mark for the first time, with total exports increasing by 19 per cent from 4,542.4 tonnes in 2005-06 to 5,404.2 tonnes in the same period. The impact on the revenue front was equally interesting. The collections in 2006-07 surged by 25 per cent to (Rs. 444.7 million) USD 9.96 million, from Rs. 356 million (USD 7.97 million) in 2005-06.

In the recent past, adequate infrastructure has come up to support expanding trade linkages. Offices of CHAs and almost 50 shipping lines with container facilities and FCL services by road and train to gateway ports have come up in a major way.<sup>28</sup> RBI has issued an offshore banking policy Three banks viz. State Bank of India, Bank of India, Punjab National Bank have entered into MOUs for the setting up offshore banking units at SEZ. Bank of India has also created a SEZ cell for providing finance to the prospective units of SEZ in the form of foreign currency loans. There are two private ICDs operating in Pithampur, viz. M/S Al Cargo and PICASO. Some of the companies are doing extremely well in terms of developing diversified export destinations. For instance, Shakti Pumps India Ltd. exports to 52 destinations and has in record time completed the setting up of a 200,000 pumps manufacturing plant at SEZ, Pithampur.<sup>29</sup>

During our field visit, we found that though industry turnover and export from the SEZ has expanded at an exponential growth rate, however, the trading community is least aware of any trade facilitation-related programmes particularly, measures related to automation. Out of the 12 company representatives, none were aware of the *eTrade Initiative*. All the companies, who attended the meeting, operate through CHAs and did not know that they could file export and import documents from their premises. They had never accessed EDI/ICEGATE online options. Though, all the facilities in SEZ are under one roof, still dependence on CHAs was largely due to lack of information and limited awareness of the initiatives from the Customs Department and the trade automation programme by the Ministry of Commerce and Industry (MoCI). In Pithampur, the hardware installed for automation is quite dated and after being declared as obsolete was removed from Mumbai. The server is extremely slow. Many CHAs fill up the forms manually. The network does not include any other peripheral agency except CONCOR, with which some issues are pending for long. There are five kinds of messages to be exchanged between the Customs and CONCOR, but on three major messages related to shipping bill, let export order and entry of goods, there is no compatibility, which requires automatised process to be backed by hard copy of the documents which traders have to carry to the relevant officers across different agencies. The Ministry of Commerce and Industry in the *eTrade initiative* meeting of 28 May, 2008 had instructed Customs and CONCOR to decide on compatibility for message formats by 31 July, 2008, for Pithampur and a few other places, but this has not happened so far. The local industry has strongly requested that MoCI should organise trade facilitation-related industry capacity building seminars for making the industry aware of various automation-related programmes.

## V. Concluding Remarks

As has emerged from the paper, India has launched several initiatives for the automation of various trade facilitating components. The process spearheaded by the customs department and duly supplemented by other agencies like Concor is yielding significant results for the trading community.

However, gains from these advancements are not equally distributed among the traders. The bigger companies with adequate resources and sufficient maneuvering ability to adapt to new situations are likely to have greater returns with the automation programme as unleashed by the current trade facilitation programmes. The small and medium enterprises have to spend a large amount of time and resources in grasping the new changes. This dissuades many firms from undertaking new possibilities offered by the TF measures. It is interesting to find that, despite the automation drive by the customs department and other frontline agencies, the SMEs prefer to rely on customs house agents (CHAs) for their customs-related operations. One reason for this is that they find the costs in terms of manpower requirement and time - and to some extent electronic infrastructure - too high since full automation and one-time submission are not in place.<sup>30</sup> Another reason is that SMEs believe that they lack the specialized knowledge to file their own documents efficiently.

In our survey we found that two-three per cent of firms switching back from CHAs to conducting their own handling of trade procedural formalities. Many SMEs have identified factors such as lack of knowledge of computation of goods, lack of information of various notifications being issued by various agencies apart from several hassles related to non-compatibility of software programmes among various agencies. The changing tariff structure has also been listed as one among the factors responsible for continuous dependence on CHAs. In this situation, CHAs seems to be the most practical special purpose vehicle for the trading community as they know best how cargo clearance is to be ensured in a limited time frame. Despite continuous concern for reduced physical inspections along with reduced documentary and data requirements as determined by domestic legislation, and the right to submit for processing a single document covering all goods contained in a consignment and lesser release time, the practical situation has not changed as agencies require physical verification at which point, again traders prefer to rely on CHAs and wants to be out of the procedural chain.

The following steps may be considered for improving the situation:

#### Automation at the Ground Level

This is an area that continues to be a concern for the trading community as the Indian customs has yet to improve inter-agency connectivity with its software and also improve the capacity of its servers apart from periodically removing obsolete computer machines. This means a greater budgetary allocation for Customs Department to improve their infrastructure and connectivity. The idea of installing a centralized server by customs may address this limitation to a great extent. However, at the same time efforts for continuous updating of information related to various changes as published by the customs is also highly important. This should be done as soon as the CBEC makes any change in the existing legislations. Due to slow automation and lack of alternative channels for information dissemination the ground staff comes to know of changes much later. This also creates problems for the trading community. The CBEC has made some initiatives to organize short-term training courses focused on automation initiatives to bridge the gap but this needs further intensification.<sup>31</sup>

#### SME Friendly Legislations

The customs automation programme does not distinguish between small and large players, despite the fact that SME contribution to India's trade has consistently been above 30 per cent. At present, in certain schemes requirements are structured in such a way that SMEs are kept out of the purview of the legislation, for instance, the recently introduced ACP programme focuses on requirements of large firms only. The criteria for SMEs in India is a ceiling from Rs 2 million (USD 0.04 million) to Rs. 100 million (USD 2.25 million) while the minimum turnover required for the ACP programme is Rs. 100 million (USD 2.25 million). Even the duty payment criteria required to qualify for ACP is of Rs. 10 million (USD 0.22 million), which hardly any SME is able to pay.

Similarly, the support programme from the Custom's Department favours CHAs for instance, when the automation programme was launched in 1995, it initially supported

select CHAs across Delhi and Mumbai who were given free software and their subsequent updates. If a similar facility can be extended to atleast select SMEs, probably, it may inspire and encourage other SMEs to directly file their own trade documents.

#### Tariff Classification

Despite greater automation, the percentage of error in the ITC HS classification is as high as 30 per cent while the error in quantity is 41 per cent as far as exports are concerned. This is a major area of concern not only for exporters and importers but also for various government agencies including the MoCI. In the case of imports, wrong product classifications have been found in 11 per cent of the cases.<sup>32</sup> The problem continues between DGCIS and DGFT, as each one of them follow different levels of classification. This eventually gets reflected in the data being generated from custom's points. This requires small and medium companies to depend on CHAs for pushing in their cases for right interpretation.

#### Inter-Agency Automation Linkage

As has emerged from the paper, the inter-agency coordination among the frontline agencies is a major challenge in India. The Customs, DGFT, Port Trust, Airports, Concor and other private agencies, banks, airlines, inland container depots and container freight stations, all have to have a common connecting e-network for facilitating faster implementation of the e-trade project as initiated by the Ministry of Commerce and Industry.

#### Replacing Obsolete Machines

The Pithampur case study reveals that several computers are completely obsolete in most of the locations. There has to be a long-term vision, given the growing trade volume, ensuring the replacement of these machines so that SMEs who use the services of private operators like CMC, as provided by the customs department, atleast are able to file the customs paper on their own.

Overall, the India study reveals that seamless and 'end-to-end' automation still has to take concrete shape, compatible across different transport means, and has to incorporate the larger logistic chain that involves the private sector. This is found to be a significant barrier to direct filing. However, whether this is the main reason for SMEs continued reliance on CHAs is difficult to untangle from other issues.



## References

- Albuero, Florian A. (2008). 'Context of IT in TF'. Presentation made at the ARTNeT Research Team meeting *Impact of IT based Trade Facilitation Measures on Inclusive Development*, July 29-30, Bangkok, Thailand.
- CBEC (2005). 'E-Governance in CBEC: The Changing Face of Indirect Tax Administration. Directorate General of Systems and Data Management'. The Central Board of Excise and Customs, Government of India, May.
- Chaturvedi, Sachin (2006). "An Evaluation of the Need and Cost of Selected Trade Facilitation Measures in India: Implications for the WTO Negotiations: A Summary" in Studies in Trade and Investment (STI) No. 57 entitled, *An Exploration of the Need for and Cost of Selected Trade Facilitation Measures in Asia and the Pacific in the Context of the WTO Negotiations*. Bangkok: UN ESCAP.
- \_\_\_\_\_ (2006). "An Evaluation of the Need and Cost of Selected Trade Facilitation Measure in India: Implications for the WTO Negotiations". *ARTNeT Working Paper* No. 4. Asia-Pacific Research and Training Network on Trade (ARTNeT), United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP), Bangkok.
- \_\_\_\_\_ (2007). "Trade Facilitation Measures in South Asian FTAs: An Overview of Initiatives and Policy Approaches", *Asia-Pacific Research and Training Network on Trade Working Paper Series*, No. 28, January.
- Chaturvedi, Sachin and S. K. Mohanty (2007), "Trade and Investment: Trends and Prospects", Vol. 14, Issue 2, Winter/Spring, *South Africa Journal of International Affairs*, pp. 53-69.
- Das, Keshab (2007) "SMEs in India: Issues and Possibilities in Times of Globalisation", (Ed.) Hank Lim in *ASEAN SMEs and Globalization*, ERIA, Tokyo.
- Economic Times* (2009). "Plan to Remove 21 items from SME List on hold". March 4, New Delhi.
- Hindu Business Line* (2005). "Consolidated IT System for Customs, Excise, Service Taxes", February, 19<sup>th</sup>, New Delhi.
- John, Shobha (2006). 'On the fast-track: Cargo clearance at airports', *The Times of India*, January 29

- MoCI (2008). “eTrade: Facilitating International Trade in India”, Ministry of Commerce and Industry, Government of India, New Delhi.
- Mohanty, S. K. and Robert Arockiasamy (2008). “Prospects for making India’s manufacturing sector export oriented”, Ministry of Commerce and Research & Information System for Developing Countries, New Delhi.
- Planning Commission (2006). *Customs Procedures and Functioning of Container Freight Stations and Ports, Report of the Inter-Ministerial Group*. Planning Commission, Government of India.
- MoF (2008). Economic Survey 2007-08. Ministry of Finance, Government of India, New Delhi.
- MoS (2006). *National Maritime Development Programme: Port Sector*, March, Ministry of Shipping, Road Transport and Highways, Department of Shipping, Government of India.
- MSME (2007). *Annual Report*, Ministry of Micro, Small and Medium Enterprises, Government of India.
- Poddar, Tushar and Eva Yi (2007). ‘India’s Rising Growth Potential’, January 22, Goldman Sachs, US.
- Rodrik, Dani and Arvind Subramanian (2005), “From ‘Hindu Growth’ to Productivity Surge: The Mystery of the Indian Growth Transition“, IMF Staff Papers, Vol. 52, No. 2, International Monetary Fund, Washington DC.
- Roy, Jayanta (2004). “Trade Facilitation in India: Current Situation and the Road Ahead”. A Paper presented at the EU-World Bank/ BOAO Forum for Asia Workshop on ‘Trade Facilitation in East Asia’ China, 3-5 November.
- SCF (2005). *Standing Committee on Finance – 2004-05, Seventeenth Report*, Lok Sabha Secretariat, New Delhi.
- Sengupta, Nirmal and Moana Bhagabati (2003). “A Study of Trade Facilitation Measures: From WTO Perspective”. Madras Institute of Development Studies, Chennai, August.
- Taneja, Nisha (2004). “Trade Facilitation in the WTO: Implications for India”. *ICRIER Working Paper No. 128*. April.
- WEO (2008). *World Economic Outlook: Financial Stress, Downturns and Recoveries*, October, International Monetary Fund, Washington DC.

WTO (2008). Communication from the European Communities, Mongolia, the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu, and Switzerland, TN/TF/W/110/Rev.1, World Trade Organisation, Geneva, 11<sup>th</sup> July.

\_\_\_\_\_ (2008a). Communication from the European Communities and Mongolia: Authorized Traders, TN/TF/W/109/Rev.1, World Trade Organisation, Geneva, 10<sup>th</sup> July.

\_\_\_\_\_ (2006). Communication from the European Communities, Mongolia, the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu, and Switzerland, TN/TF/W/110, World Trade Organisation, Geneva 6<sup>th</sup> June.

## Annex 1: Questionnaire for the Survey

 <b style="font-size: 2em;">RIS</b> Research and Information System for Developing Countries	 <b>Ministry of Commerce &amp; Industry</b>
 UNITED NATIONS <b>ESCAP</b> Economic and Social Commission for Asia and the Pacific	 <b>Asia-Pacific Research and Training Network on Trade</b>

### The Impact of Information Technology (IT) in Trade Facilitation on Small and Medium Enterprises (SME) in India

#### A. Identification of Respondent and Company Profile

1. Name of the Respondent and Position: \_\_\_\_\_
2. Name of Company: \_\_\_\_\_
3. Address: \_\_\_\_\_
4. Telephone Number: \_\_\_\_\_ e-mail: \_\_\_\_\_
5. Main Business Activity:    CHA                            Freight Forwarder  
     Shipping Agent            Other (specify): \_\_\_\_\_
6. Number of Years in Business: \_\_\_\_\_
7. Number of Employees: \_\_\_\_\_
8. Number of Customers: \_\_\_\_\_
9. What is the profile of your customers (small, medium, large scale) and how much do they account for your business (% out of total no. of customers)?  
       a)  Small \_\_\_\_\_ b)  Medium \_\_\_\_\_ c)  Large \_\_\_\_\_
10. What are the main products that you handle? \_\_\_\_\_  
       \_\_\_\_\_
11. Date of Response: \_\_\_\_\_

#### B. Cargo Declaration Process

1. How often do you lodge Customs Declarations? Please tick one box for exports and/or imports and state the approximate number of lodgments.

Exports:  
a)  Daily \_\_\_\_\_ b)  Weekly \_\_\_\_\_ c)  Monthly \_\_\_\_\_

Imports:  
a)  Daily \_\_\_\_\_ b)  Weekly \_\_\_\_\_ c)  Monthly \_\_\_\_\_

2. What is the percentage of Customs Declarations lodged as part of RMS?

Exports:  
a) Bol : \_\_\_\_\_%      b) Non-Bol : \_\_\_\_\_%

Imports:  
a) Bol : \_\_\_\_\_%      b) Non-Bol : \_\_\_\_\_%

3. How do you lodge the Customs Declarations? Pick the relevant boxes.

a) Manually (by going to Customs/BOI physically)   
b) Electronically (using EDI provided by eServices)   
c) Combination of the above

4. How much do you pay to lodge a Customs Declaration? Pls. tick the relevant and state the amount.

a)  Manually: Rs. \_\_\_\_\_  
b)  Electronically (using EDI provided by eServices): Rs. \_\_\_\_\_

5. Does the lodgment fee differ according to size of the firm, industry, size of shipment or any other criteria?

a)  Yes      b)  No

6. If Yes, pls. tick the relevant boxes:

a)  Size of the firm      b)  Size of the shipment      c)  Industry  
d)  Other. Pls. specify: \_\_\_\_\_

7. Do you think the size of a company (small, medium, large) affects its decision to use an agent or not?

a)  Yes      b)  No

8. Do you think SMEs are aware of the possibility of lodging Customs Declaration electronically?

a)  Yes      b)  No

9. Currently which method do you prefer to use the most for exports and imports?

Exports:  
a)  Manual      b)  EDI      c)  both

Imports:  
a)  Manual      b)  EDI      c)  both



- a)  Computer with internet connectivity
- b)  Software that computes taxes due
- c)  System that allows clients to send the import/export information electronically
- d)  Others. Please describe: \_\_\_\_\_

2. When did you first start lodging Customs Declarations electronically (year)?

a)  EDI: year \_\_\_\_\_

3. Since then, has the number of electronic lodgments of Customs Declarations through EDI increased, decreased or remained unchanged?

- a) EDI:  Increased    b)  Decreased    c)  Unchanged

4. Did you have to make any new investments in IT (such as computer equipment, software and internet connections) as a result of introducing electronic lodgment of entries?

- a)  Yes                      b)  No

If Yes, how much was your investment? Rs. \_\_\_\_\_

5. In what areas did you have to make adjustments in adapting to electronic lodgment? Pls. tick the relevant boxes and describe if necessary

- a)  organization and staffing: \_\_\_\_\_
- b)  training: \_\_\_\_\_
- c)  procedures: \_\_\_\_\_
- d)  budget: \_\_\_\_\_
- e)  equipment: \_\_\_\_\_
- f)  system configuration and connectivity: \_\_\_\_\_
- j)  other adjustments: \_\_\_\_\_

6. What were the major problems encountered in adapting to electronic lodgment? Pls. list

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

7. Have you received any help/support from the EDI service provider?

- a)  Yes                                      b)  No

If Yes, please tick the relevant boxes

- a)  Training of personnel
- b)  Provision of equipment
- c)  Financial support
- d)  Other. Please specify: \_\_\_\_\_

8. Have you received help/support from government (i.e. customs)/private/international organizations to adapt to electronic lodgment?

- a)  Yes                                      b)  No

9. If Yes, please tick the relevant box & give the names of organization/s:

- a)  Government: \_\_\_\_\_
- b)  Private: \_\_\_\_\_
- c)  International: \_\_\_\_\_

10. What type of support did you receive from above?

- a)  Training of personnel
- b)  Provision of equipment
- c)  Financial support
- d)  Other. Please specify: \_\_\_\_\_

11. In which areas would you need more help/support to adapt to electronic lodgment? Please tick the relevant boxes and rank them (1 to 7, 1 being the most important)

- a)  Organization and staffing: \_\_\_\_\_
- b)  Training \_\_\_\_\_
- c)  Procedures \_\_\_\_\_
- d)  Budget \_\_\_\_\_
- e)  Equipment \_\_\_\_\_
- f)  System configuration and connectivity \_\_\_\_\_
- g)  Other adjustments: \_\_\_\_\_

**D. Benefits and Costs of Customs Automation**

1. What changes have you experienced by lodging Customs Declarations electronically, compared to doing it manually (please tick the relevant electronic system and the related boxes)?

- a)  EDI
  - Shorter average *lodgment time* by \_\_\_\_\_ hours \_\_\_\_\_ minutes
  - Longer average *lodgment time* by \_\_\_\_\_ hours \_\_\_\_\_ minutes
  - No significant difference in average *lodgment time*
  - Shorter average *clearance time* by \_\_\_\_\_ hours \_\_\_\_\_ minutes
  - Longer average *clearance time* by \_\_\_\_\_ hours \_\_\_\_\_ minutes
  - No significant difference in average *clearance time*
  - Increase in *lodgment costs* involved
  - Decline in *lodgment costs* involved

2. If it led to a longer average lodgment/clearance time and increase in lodgment costs, what do you think are the reasons?  
\_\_\_\_\_  
\_\_\_\_\_

3. In what other ways have you benefited from electronic lodgment? Please circle the relevant number.

- a) Can provide quicker service for clients  
*No benefit* *Highly beneficial*  
1-----2-----3-----4-----5

- b) Freedom to work outside Customs normal working hours  
*No benefit* *Highly beneficial*  
1-----2-----3-----4-----5



c) Reduced traveling, delays and queues at Customs

*No benefit* *Highly beneficial*  
1-----2-----3-----4-----5

d) Easy access to own declaration data from the system

*No benefit* *Highly beneficial*  
1-----2-----3-----4-----5

e) Other (please specify): \_\_\_\_\_

4. Are there any shortcomings in the current system of electronic lodgment?

a)  Yes                      b)  No

If Yes, what are they?  
\_\_\_\_\_

5. Do you think that automation has had an impact on your Small and Medium Sized (SME) clients?

a)  Yes      b)  No      c)  Do not know

6. If Yes, has the impact been:

- a)  More positive for SMEs than large clients
- b)  Same for SMEs and large clients
- c)  Less positive for SMEs than large clients
- d)  Negative as the system advantages larger clients

7. Since the automation of the system has the participation of SME clients/firms in trade increased relative to that of large clients?

a)  Yes      b)  No      c)  Do not know

8. Other than electronic lodgments are there any other import/export procedures in place which discriminate against SMEs (as opposed to large firms)?

a)  Yes      b)  No

If yes, what are they?  
\_\_\_\_\_  
\_\_\_\_\_

9. What more do you think needs to be done to develop automation in trade facilitation in India? Pls. explain

\_\_\_\_\_  
\_\_\_\_\_

10. What improvements/changes to the system could be done to support the participation of SME clients? Pls. explain

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## **Annex 2: List of SMEs Interviewed during the Study**

- (1) Jennin Overseas, New Delhi.
- (2) Japji Enterprise, New Delhi.
- (3) Semco Forge Pvt. Ltd.
- (4) Membrane Engineering Pvt. Ltd., New Delhi.
- (5) Ashoka Technologies, New Delhi.
- (6) A. D. International, New Delhi.
- (7) The Shaw House, New Delhi.
- (8) M/s Anglo French Drugs & Industries, Pithampur, Ltd, SEZ, Pithampur.
- (9) Crompton Greaves Limited, SEZ, Pithampur.
- (10) Dhar Textile Mills Ltd, SEZ, Pithampur.
- (11) Girnar Fibre Ltd, SEZ, Pithampur.
- (12) Hindustan Phosphate Pvt. Ltd, SEZ, Pithampur.
- (13) Kores India Ltd., SEZ, Pithampur.
- (14) Manoj Surgical Industries Ltd, SEZ, Pithampur.
- (15) Mittal Appliance Pvt. Ltd, SEZ, Pithampur.
- (16) Shivani Detergent Pvt. Ltd., SEZ, Pithampur.
- (17) Indore Wire Ltd., SEZ, Pithampur.
- (18) Shree Triupati Balaji Agro Trading Co. Pvt. Ltd., SEZ, Pithampur.
- (19) Aman Polypack Pvt.Ltd., SEZ, Pithampur.
- (20) Surya Kiran Polypack Pvt. Ltd., SEZ, Pithampur.
- (21) Bulk Pack Export Ltd., SEZ, Pithampur.
- (22) Lakshmi Pipe and Fittings, SEZ, Pithampur.

(23) Inter-Metal Trade Ltd., SEZ, Pithampur.

### **Annex 3: List of CHAs/Freight Forwarders/Shipping Lines**

(1) S. K. Jain and Company, New Delhi.

(2) P. S. Atree and Co. Pvt. Ltd., New Delhi.

(3) Khimji Poonja Freight Forwarders Pvt. Ltd, Mumbai.

(4) Trinetra Impex Pvt. Ltd., New Delhi.

(5) Mahalaxmi Logisitics, New Delhi.

(6) Omega Shipping Agencies Pvt. Ltd., Mumbai.

(7) Meridian Shipping Agency Pvt. Ltd., New Delhi.

(8) Container Movement (Bombay) TPT. Pvt. Ltd., Mumbai.

(9) M/s. A. V. Global Corp. Pvt. Ltd., New Delhi.

(10) Delhi Customs Clearing Agents Association (DCCAA), New Delhi.

(11) TRAXON India Pvt. Ltd., New Delhi, New Delhi.

### **End Notes**

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<sup>1</sup> Standing Committee on Finance, SCF (2005).

<sup>2</sup> Planning Commission (2006).

<sup>3</sup> WTO (2008) and WTO (2006).

<sup>4</sup> WTO (2008a)

<sup>5</sup> The President under Notification dated 9 May 2007 has amended the Government of India (Allocation of Business) Rules, 1961.

<sup>6</sup> MoF (2008).

<sup>7</sup> The present policy of government allows the bigger players to set up units even on the sectors that are reserved for SSI. As per para 2.18 of the Hand Book of Procedure issued by the Directorate General of Foreign Trade, this is allowed subject to fixing of some export obligation on those units. Long back it was 75% and later reduced to 50% i.e. 50% of the total production was to be exported. The provision still stays, but the percentage is now not uniform but will be decided by a Committee. Therefore, even a large scale factory can be setup in such sectors if they take the export obligation.

<sup>8</sup> *Economic Times* (2009).

<sup>9</sup> *Hindu Business Line*, February 19, 2009.

<sup>10</sup> [www.icegate.gov.in](http://www.icegate.gov.in)

<sup>11</sup> Personal communication with DG Systems (Customs Department).

<sup>12</sup> John Shobha (2006).

<sup>13</sup> [http://www.aai.aero/services/airport\\_audit\\_commercial\\_cargo.jsp](http://www.aai.aero/services/airport_audit_commercial_cargo.jsp)

<sup>14</sup> <http://electronics.ihs.com/news/2006/uncefact-india-ebusiness.htm>

<sup>15</sup> All available on site <http://etrade.gov.in>

<sup>16</sup> MoCI (2008).

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<sup>17</sup> Personal communication with Mr. Anurag Mathur, Executive Director (MIS), Concor India, 3 December, 2008.

<sup>18</sup> Personal communication with Mr. Anurag Mathur, Executive Director (MIS), Concor India, 3 December, 2008.

<sup>19</sup> <http://ipa.nic.in/pcs/Pcs.asp#Introduction>

<sup>20</sup> With the new modes of transportation and increase in international trade and containerization, the ports were getting congested. To tide over this scenario, the concept of Container Freight Station i.e. off dock facility to handle international and national cargo was born. Container Freight Station (commonly known as CFS) also referred to as dry ports, provide various services for handling container/cargo outside the port. It also facilitates set-up for the purpose of in-transit container handling, examination and assessment of cargo with respect to regulatory clearances, both import and export. CFS is an integral part of the logistics chain in relation to the movement of containerized cargo.

<sup>21</sup> It would be pertinent to clarify that functionally there is no distinction between an ICD or the above mentioned CFS as both are transit facilities, which offer services for containerization of break bulk cargo and vice-versa. These could be served by rail and/ or road transport. An ICD is generally located in the interiors (outside the port towns) of the country away from the servicing ports. CFS, on the other hand, is an off dock facility located near the servicing ports which helps in decongesting the port by shifting cargo and customs-related activities outside the port area. CFSs are largely expected to deal with break-bulk cargo originating/terminating in the immediate hinterland of a port and may also deal with rail-borne traffic to and from inland locations.

<sup>22</sup> Planning Commission (2006).

<sup>23</sup> Planning Commission (2006).

<sup>24</sup> Personal Communication with Mr. Raman Raj Sood, President, Delhi Customs Clearing Agents Association (DCCAA), New Delhi.

<sup>25</sup> Personal communication with Mr. Dushyant, CHA, Mumbai.

<sup>26</sup> The main objectives of the SEZ Act 2006 are as follows: (a) generation of additional economic activity (b) promotion of exports of goods and services; (c) promotion of investment from domestic and foreign sources; (d) creation of employment opportunities; (e) development of infrastructure facilities.

<sup>27</sup> MPAKVN is Madhya Pradesh. Audyogik Kendra Vikas Nigam (Indore) Limited which is a government of Madhya Pradesh Undertaking and subsidiary of M.P. State Industrial Development Corporation.

<sup>28</sup> The major shipping lines available are Maersk India, American Presidential line, Mediterranean Shipping Company, NYK line, Shipping Corporation of India Limited, Samsara Shipping, Mitsui OSK line, etc.

<sup>29</sup> Personal communication with Mr. Atul A Janawade, Shakti Pumps, 3 October, 2008, Pithampur.

<sup>30</sup> (The CHAs charge SMEs with additional amount for electronic filing on the basis of per document filed. In the survey 33 per cent).

<sup>31</sup> See section II.3, for further details.

<sup>32</sup> *Business Standard*, 25 August 2005.