AN OVERVIEW OF INDIA'S INTERNATIONAL TRADE IN TRANSPORT SERVICES

Minu Singal*

Abstract

International trade in service sector has been seeing dynamic growth in the last few decades and so is the case with all its sub-sectors. This article gets an overview of the transport services sector – the 5th largest traded service sector. The article looks into the progress made in terms of market access commitments and otherwise in the sector and then some of its major sub-sectors viz. Maritime transport, Air transport and Rail and Road transport are analysed separately. Commitments undertaken by India in her Schedule and later in her offers are also discussed along with the growth of international trade in transport services.

Keywords: Air transport, Commitments, Maritime, Transport, WTO.

Last few decades have seen immense growth in the trade in service sector. Keeping in view this growth and the potential thereof in the trade in service sector, WTO has also brought this sector under multilateral trade negotiations. This article is an attempt to have an overview of one of the major service sectors viz. Transport services. The detailed analysis of the sector will help us in better understanding of the sector in terms of progress made in the sector under WTO, the barriers to the growth of its trade and commitments made by Members and India in the sector.

Section 1 introduces the transport sector. Sections 2, 3 and 4 give an overview of the sub-sectors Maritime transport, Air transport and Rail & Road Transport globally as well as in India, Section 5 is about India's Commitments and International Trade in Transport Services and Section 6 concludes.

* Associate Professor (Economics), CIS Kanya Mahavidhyalaya, Fatehpur-Pundri, Distt Kaithal, Haryana

1 Introduction

Transport services are basic infrastructural services which are a necessity to accomplish merchandise trade, especially, international merchandise trade. An efficient transport system increases a country's competitiveness and welfare of its population by increasing accessibility and connectivity. Transportation costs may make international trade in goods look attractive or unattractive as at times transportation costs form a major part of total cost (Andriamananjara 2001). Thus export competitiveness hinges on transportation costs. Tourism sector and trade in services under mode 4 are also directly affected by the costs of international transport services (Findlay 2009). Tourism services are more affected by higher transport costs, especially regarding air services, (for more than 90 percent of tourists use air travel services), especially, if substitute tourist destinations are available. Even business tourism gets affected by high transport costs. It is estimated that a doubling in transportation costs reduces tourism eight-fold.[1]

Under GATS transport services include all modes of transport and auxiliary services as well. GATS classification divides transport services in 8 sub-sectors – (A) Maritime Transport Services (54); (B) Internal Waterways Transport (18); (C) Air Transport Services (60); (D) Space Transport (4); (E) Rail Transport Services (35); (F) Road Transport Services (54); (G) Pipeline Transport (15); (H) Services Auxiliary to All Modes of Transport (52); and (I) Other Transport Services (9).[2] Internal Waterways, space transport, railways and pipeline transport have received minimum commitments. Transport services, in totality, have attracted fifth highest number of commitments after tourism, financial services, business services and communication services (Construction services rank sixth. Minimum commitments were received by health and educational services.) and this is also the sector which has attracted maximum MFN exemptions, 147 in total as of March 2000, mainly in maritime transport and road transport (Findlay, 2009). Mode wise, mode 4 happens to attract least commitments and mode 2 the highest (Findlay, 2009).

Road transport is of interest to neighbouring countries only. Therefore, this sub-sector was not given much attention in Uruguay Round of negotiations. The sector was left to be negotiated bilaterally or at regional level (Naude, 1999). It is estimated that overland transport i.e. transport

---

1 Global Economic Prospects 2002.

2 The sector does not include cabotage services (i.e. the transportation of goods or passengers within the same country). Figures in brackets give us the number of commitments made in that particular sub-sector under GATS.

by road or rail is costlier than maritime transport and land-locked countries, hence, are at a disadvantage, for they have to spend more on transport for their merchandise trade than coastal economies. India is lucky that way, as it is bound by coastal region on three of her sides.

Regarding maritime services, extended negotiations on the sector continued for two more years after the Uruguay Round and were finally suspended by the end of June, 1996, without reaching any agreement. Negotiations were held on three major areas – international shipping, auxiliary maritime services, and access to and use of port facilities.

Regarding air transport services, GATS covers only services that are complementary to the flying operations such as aircraft repair and maintenance services, selling and marketing of air transport services and computer reservation system (CRS) services. Traffic rights and services directly related to traffic – the largest part of the air transport services are excluded from GATS as per one of the Annexes. The Annex also said that the sector would be reviewed every five years by CTS – one of such review happened during 2000-2003 and the second review that started in September, 2005 is still going on. In the on-going work on second review, the WTO Secretariat has defined various aspects of air transport and related services (which was not done earlier in the Annex for air transport services) and has developed the QUASAR (Quantitative Air Services Agreements Review) database and methodology to assess the liberalisation of the air transport sector on a universal scale.[3]

Annex on air transport services also exempts air transport services from MFN clause i.e. it allows bilateral or multilateral agreements that were made before WTO Agreement came into force. The air transport services sector is governed by bilateral agreements (there were 3500 such agreements by 2002)[4] regarding country and route specific quotas. These agreements go against the spirit of GATS as they violate Article II regarding MFN clause and also National Treatment clause.

2 Maritime transport

Maritime transport alongwith air transport is one of the major modes of international transportation. As per an estimate there are 90,000 ships plying 3000 ports in the world.[5] In 2009, the world merchant fleet exceeded 1 billion dwt (dead weight tonnage) and India ranked at

---

[3] WTO
[4] Adlung et al. 2002.
[5] Government of India – a

the 16th position with 963 ships and 15.5 million dwt, a share of 1.4% in terms of dwt. The Gross Tonnage (GT) under the Indian flag was 10.1 million GT as of 1.09.2010, with as much as 1029 ships in operation.[6]

International trade in the sector faces many barriers. One of the major barriers to maritime transport comes from government policies in the form of a variety of cargo reservation schemes which require that a certain part of the international trade must be done by using ships with national flags which may be either government owned or private. Cargo reservation systems could be unilateral or may involve sharing with some trading partner on the basis of bilateral or multilateral agreement. But change is visible. Many countries are now phasing out these schemes. Another issue regarding the shipping industry is that of formation of a limited number of cartels and hence, measures taken to bring competition in the sector could lead to increased merchandise trade (Andriamananjara, 2001). It is felt that breaking up of these cartels may lead to cost savings of up to 20 percent.[7]

India's share in global merchandise trade was about 1.1 percent in 2008 but their growth is gaining strength and to maintain the momentum of this growth India needs to have efficient and adequate shipping and port infrastructure. India has a coast-line of around 7517 kms with 13 major ports and 176 notified non-major (minor/intermediate) ports along the coast-line and sea-islands. Approximately 90% of the country's trade by volume and 70% by value is moved through Maritime Transport (Globally, maritime transport handles 80% of international trade by volume and 70% by value).[8]

Earlier all kinds of investments in the shipping sector whether to develop ports, or to purchase or make ships were made by the public sector as the sector demanded huge resources, had long gestation period, and provided uncertain returns but in the 1990's, the government allowed private sector to invest in the sector, especially in development of ports. This has surely helped the sector to raise efficiency level and to bring required investments but not to the extent as was expected.

There are areas of concern. High taxation rate, plethora of rules and regulations (both domestic and international), port delays, over-aged vessels (most of the Indian ships are over twenty years

[6] Export Import Bank of India, 2010.
[7] Global Economic Prospects 2002.
[8] Government of India – c.

of age) resulting in poor turnaround time for coastal ships, shortage of manpower to man Indian flag vessels, shortage of vessels relative to the growing merchandise trade are some of the reasons marring the growth of Indian shipping industry and its trade.

Future growth of the Indian shipping sector requires huge amount of investment as the sector is highly capital intensive. Though the trend of cargo reservation is on decline still this is, till date, the best way to increase one's share in trade in transport services. Hence, India should go for bilateral agreements for increased cargo reservation. For the growth of the industry and to bring it to globally comparable standards, the Ministry of Shipping, Road Transport and Highways initiated National Maritime Development Programme (NMDP) in Dec. 2005. The programme consists of 387 projects worth Rs. 1003 billion. Ministry of Shipping has also prepared Perspective Plan 2020 for stimulation of capacity expansion and growth of maritime sector. India is also venturing in cruise shipping. India has also immense potential in the trade of ship repair services. It is again lucky for India that she is located strategically on the international trade route and the country can offer ship repair and maintenance services to ships plying from west to east in the trade route[9]. India also has one of the largest pools of trained seafarers in the world. Many of these seafarers are working for ships under foreign flags. Thus, India also has potential in mode 4 in this sector.

3 Air transport

With better technology in air transport services, prices have declined both for freight transport and more sharply for passenger transport. Freight operating revenues per ton-kilometres for airlines have declined by 55 percent over the period 1980- 2002. As a result, the share of world trade shipped by air has increased from 7 percent in 1965 to 30 percent in 1998 in terms of value for US imports[10]. In India less than 5 percent of the total volume of the cargo is exported through air transport but it is increasing with time (Mukherjee and Sachdeva 2003).

As seen above, this sector is based on bilateral agreements called 'Air Service Agreements'. In the past decade alone, more than thousand bilateral agreements have been made. More than 70% of these agreements were a move towards more liberal arrangements by expanding traffic rights (covering third, fourth or fifth Freedom traffic rights and sometimes even higher levels of traffic

[9] Export-Import Bank of India 2010.
[10] Global Economic Prospects 2002.

rights)[11], reducing route limitations, free pricing regime et.al. India has entered into Air Service Agreements with 103 countries.[12] Another development in the air transport services is the increase of bilateral agreements on 'open skies' air services. These agreements provide full market access, having no restrictions on traffic rights, tariffs, frequencies, capacity et.al. By 2009, 157 such agreements were made involving 96 countries. USA was one of the partners in 82 such agreements. Many other plurilateral and regional agreements are also taking place.[13]

Last few years have also seen the privatisation of erstwhile government-owned airlines. In the last three decades 135 countries have either privatised their government owned airlines or announced their intention to do so. Last few years have also seen the growth of low-cost carriers (LCCs). LCCs have low fares, minimal overheads, simple in-flight services, high density single class with no seat arrangements.[14] India also privatised some sectors of the air transport like – running air services, construction, operation and maintenance of airports. Air traffic control is still in public domain. In 1990 India unilaterally adopted open sky policy for cargo for three years and then permanently in 1992.[15] The policy allowed foreign airlines to carry cargo without any restrictions and carriers were free to set their own rates without any regulatory control on cargo rates from DGCA. The effect was considerable. Air cargo traffic saw strong growth since the adoption of the open sky policy. In 1994, Air Corporation (Transfer of Undertaking and Repeal) Act, was enacted which opened the doors for private airlines in India.

Air traffic is increasing in India and so are scheduled air services which make it imperative to have world class airports in the country. Both domestic and international passenger traffic has increased in India. Scheduled air services have also seen an immense increase in last few years in India. In 2000, Scheduled air services were available only between 50 airports whereas in 2009-10, they were available between 82 airports.[16] The total number of passengers for all airports in India grew to 109 million in 2008-09 from just 40 million in 2000-01 and similarly freight tonnage also increased from 0.8 million tons in 2000-01 to 1.7 million tons in 2008-09.

11 See Annexure 1 for Freedom of traffic rights.
12 business.gov.in
13 ICAO 2009.
14 ICAO 2009.
15 ICAO 2003.
16 IBEF 2010. Airport Authority of India (AAI), established in 1994 under the Airports Authority Act, is responsible for developing, financing, operating and maintaining all government airports in the country. Rest airports are governed under the Aircraft Act, 1934. AAI manages 128 of the 136 airports in India.

Currently, 15 scheduled airline operators hold permit of which two are regional and two in the cargo category. These operators have 419 aircrafts on their permits. The number of non-scheduled operator's permit holders has also increased to 118 for all categories – passenger, cargo and charter.[17]

The air transport services are subject to a number of taxes, fees and duties which make the services very costly and unviable. Hence, these taxes should be reduced. Also, the price of air turbine fuel (ATF) is quite high in India as compared to other countries. Increased number of players has put a strain on the infrastructure. It is necessary that we build world class airports, provide excellent air transport services – both passenger and cargo, and develop world class air traffic control system; for good standards for all these will not only bring more business to the air transport services but will also be good for tourism sector. The government has started paying attention to some of these factors. The AAI is developing 35 non-metro airports and international airports at Chennai and Kolkata and metro airports at Delhi, Mumbai are also being developed under PPP model. Some Greenfield airports are also being developed under PPP model.

Globally, air cargo services, whether unilaterally or bilaterally, are more liberal than air passenger services because whenever demand exceeds the capacity of national flag carriers, governments have often authorised dedicated freight services. To achieve full growth of the sector air passenger services also need to be liberalised. One of the major market access bottleneck faced by the sector is the requirement of higher safety and environmental standards as sought in developed countries. But such requirements are difficult to be met by most of the developing countries. Hence, international organisations like ICAO need to come forward to standardise such requirements.

4 Rail and Road Transport

For landlocked countries like many European and African countries, land transport either by road or rail is the major mode of transportation. All modes of transport have their strengths but land transport is almost indispensable for international trade on door to door basis as maritime transport and air transport are incomplete without land transport.

As a mode of transportation railways are most energy efficient and Indian railways are the largest network in Asia and second largest in the world under single management. India has not

[17] govt. of India – b.

committed this sector in her Schedule and globally also very few commitments have been made in the sector and not even the existing regime has been bound in the Schedules or initial offers. Hence, even the scope of multilateral liberalisation appears bleak in this sector.

Trade in land transport is guided by regional politics and so is true for India as well. But India's political relationships with all her neighbouring countries, barring Nepal, are quite sensitive and so the trade in land transport is an off and on phenomenon. Indian railways and its undertakings export rolling stock and spares to various developing countries and as a result there is demand for Indian professionals for repair and maintenance of these products. Indian professionals are also considered competitive and efficient globally and are also low cost and hence, their services are in demand in developed countries as well. This implies a potential in exports of transport services under mode 4 (Mukherjee and Sachdeva, 2004). Overall, India's trade in rail transport and road transport services is very limited.

To achieve efficient door-to-door delivery, the growth of multi-modal transport is a necessity and hence, ways and means should be found to increase multi-modal transport services. A step in right direction was taken in the third meeting of SAARC transport ministers in Nov, 2010 at New Delhi when it was decided to expedite multi-modal transport connectivity in South Asia beginning with a demonstration run of the container train between Bangladesh – Nepal – India. [18]

5 India's Commitments and International Trade in Transport Services

India did not commit this sector in her Schedule though she made substantial commitments in maritime transport in her first offer and for all modes. There were no restrictions on mode 1 except that, for government cargoes, preference will be given to Indian Flag vessels and only after their refusal, foreign ships will be allowed to be in-chartered/taken on international rental basis. Also, under National treatment column it was stated that in liner trade (Not restricted to liner conference trade) between India and such countries which are contracting parties to the UN Convention on code of conduct for liner conferences, the provisions of the said convention will apply. Regarding mode 3, the condition was put that for operating a ship under the Indian flag, a registered company, or a cooperative society under any Central Act or State Act having its principal place of business in India, must be established. In her initial offer India also opened her maritime auxiliary services to a great extent. In her revised offer India also made commitments

[18] Ministry of Road Transport and Highways, Annual Report 2010, pp 9.

in air transport sector, though only for 'maintenance and repair of aircraft' under first three modes. Outside GATS and her Schedule and offers, India allows 100% FDI for construction and maintenance of ports and harbours (Government of India c 2011). Similarly, in air transport services, India allows FDI upto 49% under automatic route and upto 100% for NRI's but the investment is not open for foreign airline companies, outside GATS.[19] 74% FDI is permissible for existing airports under automatic route and 100% FDI is allowed after FIPB (Foreign Investment Promotion Board) approval. As far as Greenfield airports are concerned 100% FDI under automatic route is permissible. Indian government also provides 100% tax exemption for 10 years for airport projects. 100 % FDI is also allowed in road transport but this is not scheduled. Railways, a public monopoly, does not allow FDI or private participation.

India's international trade in transport services has been increasing continuously as can be seen from the table below:

Table 1: Trade in Transportation Services

	Transportation		
Year	**Credit**	**Debit**	**Net**
1980	446.25	1788.04	-1341.79
1981	455.82	1942.84	-1487.02
1982	444.23	2100.62	-1656.39
1983	436.84	2088.09	-1651.25
1984	497.95	2108.00	-1610.05
1985	515.28	2225.14	-1709.86
1986	533.28	2160.85	-1627.57
1987	634.51	2539.17	-1904.66
1988	864.48	3028.94	-2164.46
1989	849.93	3299.48	-2449.55
1990	959.42	3418.16	-2458.74
1991	975.21	3242.21	-2267.00
1992	1035.23	4005.25	-2970.02
1993	1242.17	3976.41	-2734.24
1994	1714.21	4563.92	-2849.71
1995	1890.43	5703.07	-3812.64
1996	1988.68	6447.08	-4458.40
1997	1942.12	6813.17	-4871.05

[19] business.gov.in

1998	1773.04	7093.18	-5320.14
1999	1843.83	6979.33	-5135.50
2000	1978.71	8703.16	-6724.45
2001	2050.05	8496.98	-6446.93
2002	2473.34	8523.01	-6049.67
2003	3021.63	9311.95	-6290.32
2004	4372.78	13233.10	-8860.32
2005	5754.08	20677.60	-14923.52
2006	7561.01	24856.10	-17295.09
2007	9037.04	30835.80	-21798.76
2008	11540.60	42586.20	-31045.60
2009	10962.90	35364.20	-24401.30
2010	13088.03	48243.13	-35155.10

Source: WTO Statistical Database

Despite the fact that both our exports and imports of transport services have shown a growth trend, our net earnings from trade have remained negative, without any break, from the period 1980 to 2010 (Table 1). Both exports and imports of transport services have increased almost at the same rate over the said period: exports at the CAGR of 11.92% and imports at the CAGR of 11.61%. India was the 11th largest exporter and 5th largest importer of transport services in 2008.[20] Her share in exports of world's transport services was .6% in 2000 that increased to 1.2 % in 2008 with annual % growth rate of 24 % from 2000 to 2008. Her share in imports of world's transport services was 2.1% in 2000 and has increased to 4.0 % in 2008 with annual % growth rate of 22 % from 2000 to 2008. The largest exporter and importer of transport services was EU (27) with 45.2% share in global exports and 34.8% share in global imports of transport services.

6 Conclusion

Transport sector is of much importance to India and her growth. The sector contributed 6.4% to India's GDP in 2007-08 and employed about 40 million people (Mukherjee 2009). Most important mode of transportation is by road which contributes two third of the total contribution of transport sector to the GDP but as far as international trade in transport services is concerned, maritime transport and air transport are important in India's case as compared to other modes.

[20] International Trade Statistics 2009, pp 123, Table III.4

This sector has received 5th highest number of commitments. Still, if we take a look at sub-sector wise commitments in section 1, we find that only half of the sub-sectors viz. – Maritime transport, Air transport, road transport and Services auxiliary to all modes of transport have received some respectable level of commitments and the remaining sectors have received negligible commitments. Even India's commitments in this sector are not noteworthy. But our above overview has shown that the sector is important to India and the world as well and India has shown continuous growth in its international trade. Hence, it is imperative that trade barriers in the sector are removed and more market access commitments are made by all the Members of WTO. That India comes forward and opens up unilaterally is not a solution because it is felt that to liberalise the sector, decisions taken on unilateral basis may not be feasible whereas multilateral agreements may help in bringing consensus for policy reforms. This is because unilateral measures may benefit domestic consumers and foreign manufacturers but may hurt the domestic ITS firms and manufacturers. It is also argued that de-regulation and competition policy reforms should be taken together (Andriamananjara, 2001).

It is also imperative to develop inter-modal transport and logistics services. Major ports and airports should be connected with railways and the quality of road connectivity also needs improvement.

ANNEXURE 1

FREEDOMS OF THE AIR

First Freedom of the Air - the right or privilege, in respect of scheduled international air services, granted by one State to another State or States to fly across its territory without landing (also known as a **First Freedom Right**).

Second Freedom of the Air - the right or privilege, in respect of scheduled international air services, granted by one State to another State or States to land in its territory for non-traffic purposes (also known as a **Second Freedom Right**).

Third Freedom of The Air - the right or privilege, in respect of scheduled international air services, granted by one State to another State to put down, in the territory of the first State, traffic coming from the home State of the carrier (also known as a **Third Freedom Right**).

Fourth Freedom of The Air - the right or privilege, in respect of scheduled international air services, granted by one State to another State to take on, in the territory of the first State, traffic destined for the home State of the carrier (also known as a **Fourth Freedom Right**).

Fifth Freedom of The Air - the right or privilege, in respect of scheduled international air services, granted by one State to another State to put down and to take on, in the territory of the first State, traffic coming from or destined to a third State (also known as a **Fifth Freedom Right**).

ICAO characterizes all "freedoms" beyond the Fifth as "so-called" because only the first five "freedoms" have been officially recognized as such by international treaty.

Sixth Freedom of The Air - the right or privilege, in respect of scheduled international air services, of transporting, via the home State of the carrier, traffic moving between two other States (also known as a **Sixth Freedom Right**). The so-called Sixth Freedom of the Air, unlike the first five freedoms, is not incorporated as such into any widely recognized air service agreements such as the "Five Freedoms Agreement".

Seventh Freedom of The Air - the right or privilege, in respect of scheduled international air services, granted by one State to another State, of transporting traffic between the territory of the granting State and any third State with no requirement to include on such operation any point in the territory of the recipient State, i.e the service need not connect to or be an extension of any service to/from the home State of the carrier.

Eighth Freedom of The Air - the right or privilege, in respect of scheduled international air services, of transporting cabotage traffic between two points in the territory of the granting State on a service which originates or terminates in the home country of the foreign carrier or (in connection with the so-called Seventh Freedom of the Air) outside the territory of the granting State (also known as a **Eighth Freedom Right** or "**consecutive cabotage**").

Ninth Freedom of The Air - the right or privilege of transporting cabotage traffic of the granting State on a service performed entirely within the territory of the granting State (also known as a **Ninth Freedom Right** or "**stand alone**" **cabotage**).

Source: Manual on the Regulation of International Air Transport, Doc 9626, International Civil Aviation Organisation, 2004.

Bibliography

1. Adlung Rudolf, Carzeniga Antonia, Hoekman Bernard, Kono Masamichi, Mattoo Aaditya, and Tuthill Lee (2002), The GATS: Key Features and Sectors, in Bernard Hoekman, Aaditya Mattoo, and Philip English, ed., Development, Trade and the WTO: A Handbook, pp 259-279, The World Bank, Washington, D.C.
2. Andriamananjara Soamiely (2001), Trade and International Transport Services: An Analytical Framework, Working Paper No. 2001-11-A, Office of Economics, U.S. International Trade Commission, November.
3. Export-Import Bank of India (2010), Indian Shipping Industry: A Catalyst for Growth, Occasional Paper No. 142, October.
4. Findlay Christopher (2009), Transport Services, in Aaditya Mattoo, Robert M. Stern, and Gianni Zanini, ed., A Handbook of International Trade in Services, pp 356-388, The International Bank for Reconstruction and Development / The World Bank. ..\Services\A Handbook of International Trade in Services.pdf
5. Fink Carsten, Mattoo Aaditya and Neagu Cristina Ileana (2001), Trade in International Maritime Services: How Much Does Policy Matter?, Policy Research Working Paper 2522, Trade Development Research Group, The World Bank, Washington DC, Jan. 2001.
6. Global Economic Prospects and the Developing countries, (2002), The World Bank, Washington DC.

7. Government of India – a, Ministry of External Affairs, ITP Division, India in Business http://www.indiainbusiness.nic.in/industry-infrastructure/infrastructure/civil-aviation.htm accessed on 12th September, 2011.
8. Government of India – b, http://business.gov.in/infrastructure/aviation.php accessed on 12th September, 2011.
9. Government of India – c, http://business.gov.in/infrastructure/maritime_transport.php accessed on 12th September, 2011.
10. Government of India – d, http://business.gov.in/infrastructure/railways.php accessed on 12th September, 2011.
11. India Brand Equity Foundation (IBEF), Airports, November, 2010, www.ibef.org
12. International Air Transport Association (IATA) (2010), Annual Report.
13. International Civil Aviation Organisation (ICAO), Annual Report, various years.
14. ICAO (2003), India's Open Skies Policy On Air Cargo, February.
15. ICAO (2004), Manual on the Regulation of International Air Transport, Doc 9626, Part 4.
16. ICAO (2009), Overview of Trends and Developments in International Air Transport, March.
17. InterVISTAS-EU, The Impact of International Air Service Liberalisation on India, July 2009.
18. Ministry of Road Transport and Highways (2010-11), Annual Report.
19. Ministry of Shipping (2009), Annual Report.
20. Ministry of Shipping (2011), Maritime Agenda 2010-20, Government of India, January.
21. Mukherjee Arpita (2009), Social Impact of Globalising Transport Services: The Case of India, Forum Paper 2009-9, International Transport Forum, Paris, OECD/ITF.
22. Mukherjee Arpita and Sachdeva Ruchika (2003), Maritime and Air Transport Services: India's Approach to Privatization, Transport and Communications Bulletin for Asia and the Pacific, No. 73, pp 27-53.
23. Mukherjee Arpita and Sachdeva Ruchika (2004), Trade in Land Transport Services: Railways, Working Paper No. 119, Indian Council For Research On International Economic Relations, New Delhi.
24. Naudé Willem (1999), Trade in Transport Services: South Africa and The General Agreement on Trade in Services, Draft Report Submitted to The Trade And Industrial Policy Secretariat (Tips).
25. International Trade Statistics 2009