

IMPACT OF COVID-19 ON CARGO TRAFFIC AT MAJOR PORTS IN INDIA-AN OVERVIEW

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Abstract

The entire world has come to an abrupt halt due to Covid-19 which paralyzed the world in all spheres of life. The consequence of the pandemic is felt in all the activities undertaken and the shipping industry is no exception. The shipping industry is considered the pillar of the economy all over the world. Due to globalization, this industry has seen a sea of change. The maritime realm, which is one of the derivation enablers of globalization is a medium via which 90% of the cargo is transported across the world. Since the Pandemic necessitates everyone to maintain social distancing restrictions were imposed on borders as measures to curb the spread of the deadly virus and curtail in impact. Countries across the world declared lockdown which to a great extent had an impact on both intra-country and inter-country transportation of goods through sea routes. In this paper, an attempt has been made to understand the change of transport of Cargo in the major ports of India. This paper seeks to highlight how the Pandemic had affected the Shipping industry and measures adopted at the national level to reduce the adverse effect of the pandemic.

Keywords: Cargo Traffic, trade, maritime industry, Port Management, commodities.

1.1 Introduction

The coronavirus infection that was instigated in Wuhan, China has interrupted the world economy drastically disturbing the pillars of the world trade including the maritime industry negatively altering the cost books of ship owners and operators. As the pandemic proves itself deadlier day by day, the maritime industry is facing worse consequences. Covid -19 has affected trade and has resulted in a global economic crisis, the World Trade Organization in their report has stated that world trade is anticipated to fall between 13% to 32%. The entire shipping process from shipyards and ports have been adversely affected. Commodities in transit have been delayed, routes diverted or the goods even discharged on account of safety measures. As every country operates by its own rules and special conditions during lockdown the whole maritime industry faced severe consequences.

1.2 Relevance of the study

Analyzing the Covid -19 situation and its impact on the cargo traffic in the Indian ports the most important thing is to recognize and cater to the solution of the bottleneck solution and try to be prepared to normalizing the effect shortly although the precise impact of the covid crisis is unfolding. it has created an effect on the global supply chain and hence there is a need to create a Corona clause in every contract. this shall also make the sector resilient to such abrupt shock in the future.

1.2 Objective of the study

To analyze the change in the cargo traffic in the major ports of India on account of the COVID-19 pandemic situation

1.3 Analysis and discussions

To analyze the impact of the pandemic on the cargo traffic in the major ports in India data was collected from secondary sources and data is presented to highlight the change.

Table 1.Change in Cargo Traffic handled

	2019-20	2020-21	Percentage Change
Cargo Traffic	704.56	671.82	4.6
Overseas Cargo	537.84	524.07	2.6
Coastal Cargo	166.72	147.75	11.4

Source: - Port Data Management Portal (PDMP), Ministry of Ports, Shipping&Waterways

1.3.1 Cargo traffic handled during April -march 2019-20 and April-March, 2020-21

From the below table it is can be seen that during April-March, 2020-21, among the 12 major ports, Mormugao Port recorded the highest growth rate of 37.2% in traffic handled followed by Paradip Port 1.7%. Major ports that recorded negative growth in traffic during April-March, 2020-21 were Kamarajar Port with 18.5%, SMP Kolkata Dock System recorded 12.9%, Mumbai Port showed 12.1%, VOC Port with 11.9%, Cochin Port with 7.4%, Chennai Port showed a negative rate of 6.9%, NMPT showed the rate of 6.2%, JNPT showed a rate of 5.3%, Deendayal Port recorded 4.0%. Vizag Port of 4.0% and SMP Haldia Dock Complex recorded the least negative rate of 2.6% over April-March, 2019-20.

As far as the port wise share of cargo handled in the major port during the year 2020-21 is concerned it can be seen that the Major Ports, that handled the maximum Cargo of 117.56 million tonnes with a share of 17.5% was handled was Deendayal Port followed by Paradip Port with 17.1%, Vizag Port with 10.4%, JNPT recorded 9.6%, Mumbai Port recorded 7.9%, SMP Haldia Dock Complex Showed 6.8% growth rate, followed by Chennai Port (6.5%), NMPT (5.4%), VOC Port and Cochin Port showed recorded the same rate i.e. (4.7%), Kamarajar Port showed 3.9% Mormugao Port (3.3%), and SPM Kolkata Dock System (2.2%) during April-March, 2020-21

Table 2: A Major Ports-Port-Wise Monthly Cargo Traffic Handled

(In '000 Tonnes)											
S. N o.	Name of Ports		March, 2020 (P)		March, 2021 (P)		(April-March, 2019-20) (P)		(April-March, 2020-21) (P)		% Change {(Col. 10/Col.8 -1) *100}
			Car go hand led	% sha re	Car go hand led	% sha re	Carg o handl ed	% sha re	Carg o handl ed	% sha re	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1	SMP Kolkata	Overseas	4393	9.3	5297	9.8	46514	8.6	53956	10.3	16.0
		Coastal	1021	7.5	586	3.9	17456	10.5	6573	4.4	-62.3
		Total	5414	8.9	5883	8.5	63969	9.1	60529	9.0	-5.4
	KDS	Overseas	1149	2.4	1482	2.7	14459	2.7	14675	2.8	1.5
		Coastal	191	1.4	37	0.2	2830	1.7	386	0.3	-86.4
		Total	1340	2.2	1519	2.2	17290	2.5	15061	2.2	-12.9
	HDC	Overseas	3244	6.8	3816	7.1	32054	6.0	39281	7.5	22.5
		Coastal	831	6.1	549	3.6	14625	8.8	6187	4.2	-57.7
		Total	4075	6.7	4365	6.3	46680	6.6	45468	6.8	-2.6
2	Paradip	Overseas	7070	14.9	8127	15.1	77341	14.4	83915	16.0	8.5
		Coastal	2992	21.9	3514	23.4	35348	21.2	30634	20.7	-13.3
		Total	10062	16.5	11642	16.9	112689	16.0	114549	17.1	1.7
3	Vizag	Overseas	4728	10.0	5001	9.3	56086	10.4	53550	10.2	-4.5
		Coastal	1258	9.2	1356	9.0	16636	10.0	16293	11.0	-2.1
		Total	5986	9.8	6358	9.2	72722	10.3	69843	10.4	-4.0
4	Kamarajar	Overseas	1306	2.8	2260	4.2	17997	3.3	14700	2.8	-18.3
		Coastal	1453	10.6	1392	9.2	13752	8.2	11188	7.6	-18.6
		Total	2758	4.5	3651	5.3	31749	4.5	25888	3.9	-18.5
	Chennai	Overseas	3112	6.6	4303	8.0	41804	7.8	37964	7.2	-9.2
		Coastal	472	3.4	522	3.5	4955	3.0	5587	3.8	12.8
		Total	3584	5.9	4825	7.0	46759	6.6	43552	6.5	-6.9

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6	V.O.C.	Overseas	2627	5.5	2158	4.0	27310	5.1	21135	4.0	-22.6
		Coastal	603	4.4	838	5.6	8764	5.3	10654	7.2	21.6
		Total	3231	5.3	2996	4.3	36074	5.1	31790	4.7	-11.9
7	Cochin	Overseas	2075	4.4	2567	4.8	22969	4.3	20402	3.9	-11.2
		Coastal	1087	7.9	1127	7.5	11069	6.6	11101	7.5	0.3
		Total	3162	5.2	3694	5.4	34038	4.8	31503	4.7	-7.4
8	New Mangalore	Overseas	3280	6.9	2821	5.2	29088	5.4	25781	4.9	-11.4
		Coastal	968	7.1	1200	8.0	9808	5.9	10719	7.3	9.3
		Total	4248	7.0	4021	5.8	38896	5.5	36500	5.4	-6.2
9	Mormugao	Overseas	1165	2.5	2497	4.6	14455	2.7	20602	3.9	42.5
		Coastal	123	0.9	167	1.1	1564	0.9	1371	0.9	-12.4
		Total	1288	2.1	2664	3.9	16019	2.3	21973	3.3	37.2
10	Mumbai	Overseas	2318	4.9	3361	6.2	34295	6.4	29582	5.6	-13.7
		Coastal	1998	14.6	2195	14.6	26401	15.8	23742	16.1	-10.1
		Total	4316	7.1	5555	8.0	60696	8.6	53324	7.9	-12.1
11	JNPT	Overseas	5537	11.7	6832	12.7	64245	11.9	60075	11.5	-6.5
		Coastal	396	2.9	497	3.3	4205	2.5	4736	3.2	12.6
		Total	5933	9.7	7329	10.6	68449	9.7	64811	9.6	-5.3
12	KPT/DP T	Overseas	9815	20.7	8760	16.2	105737	19.7	102406	19.5	-3.2
		Coastal	1321	9.6	1654	11.0	16762	10.1	15152	10.3	-9.6
		Total	11136	18.2	10413	15.1	122499	17.4	117558	17.5	-4.0
Total		Overseas	47425	77.6	53984	78.2	537841	76.3	524070	78.0	-2.6
		Coastal	13693	22.4	15048	21.8	166719	23.7	147749	22.0	-11.4
		Total	61119	100.0	69031	100.0	704560	100.0	671819	100.0	-4.6

Source: - Port Data Management Portal (PDMP), Ministry of Ports, Shipping & Waterways

1. 3.2Overseas Cargo traffic handled during April-March, 2020-21

As far as Overseas Cargo traffic is concerned out of the Major Ports, Deendayal Port moved the maximum Overseas Cargo of 102.41 million tonnes which forms a share of 19.5% followed by Paradip Port (16.0%), JNPT (11.5%), Vizag Port (10.2%), SMP Haldia Dock (7.5%), Chennai Port (7.2%), Mumbai Port (5.6%), NMPT (4.9%), VOC Port (4.0%), Mormugao Port (3.9%), Cochin Port (3.9%), SMP Kolkata Dock (2.8%) and Kamarajar Port (2.8%) during April-March, 2020- 21

1.3.3 Coastal Cargo traffic handled during April-March, 2020-21

Coastal cargo traffic amongst the Major Port showed that Paradip Port is the port that handled the maximum Coastal Cargo of 30.63 million tonnes with a share of 20.7% followed by Mumbai Port with 16.1%, which was followed by Vizag Port (11.0%), Deendayal Port recorded (10.3%), Kamarajar Port with (7.6%), Cochin Port showed (7.5%), other ports were NMPT (7.3%), VOC Port (7.2%), SMP Haldia Dock (4.2%), Chennai Port (3.8%), JNPT (3.2%), Mormugao Port (0.9%) and SMP Kolkata Dock (0.3%) during April-March, 2020-21

Table-3: Commodity-wise growth of cargo traffic at Major Ports

In '000' Tonnes)

Commodities		March, 2020		March, 2021 (P)		(April-March, 2019-20)		(April-March, 2020-21) (P)		%Change {(Col.8/Col.6 -1)*100}
		Cargo handled	Percentage share	Cargo handled	Percentage share	Cargo handled	Percentage share	Cargo handled	Percentage share	
POL Crude		13510	22.1	13804	20.0	151672	21.5	136569	20.3	-10.0
POL Products		5573	9.1	5599	8.1	67903	9.6	54066	8.0	-20.4
LPG or LNG		1030	1.7	1292	1.9	13222	1.9	14666	2.2	10.9
Edible Oil		835	1.4	809	1.2	11566	1.6	9952	1.5	-14.0
FRM-Liquid		459	0.8	389	0.6	6139	0.9	6135	0.9	-0.1
Iron Ore Pellets/ Fine		5021	8.2	8126	11.8	55445	7.9	71426	10.6	28.8
Other Ores		395	0.6	605	0.9	4453	0.6	5291	0.8	18.8
Thermal Coal		9545	15.6	7336	10.6	83080	11.8	71307	10.6	-14.2
Coking Coal		3429	5.6	4204	6.1	40030	5.7	37272	5.5	-6.9
Other Coal		2025	3.3	1436	2.1	26192	3.7	23313	3.5	-11.0
Fertilizer		264	0.4	314	0.5	9222	1.3	10343	1.5	12.2
FRM-Dry		357	0.6	518	0.8	6585	0.9	7602	1.1	15.4
Food Grains excluding Pulses		98	0.2	583	0.8	928	0.1	2433	0.4	162.2
Pulses		45	0.1	0	0.0	257	0.0	256	0.0	-0.3
Sugar		250	0.4	446	0.6	2606	0.4	3955	0.6	51.8
Cement		442	0.7	328	0.5	3986	0.6	3105	0.5	-22.1
Iron and Steel		534	0.9	1024	1.5	9187	1.3	11013	1.6	19.9
Project Cargo		54	0.1	89	0.1	1001	0.1	612	0.1	-38.8
Container	Tonnes	11999	19.6	15767	22.8	146885	20.8	143694	21.4	-2.2
	TEUs (in 000 nos.)	778	-	1047	-	9995	-	9607	-	-3.9
Others		5253	8.6	6361	9.2	64200	9.1	58809	8.8	-8.4
Total		61119	100	69031	100	704560	100	671819	100	-4.6

Source: - Port Data Management Portal (PDMP), Ministry of Ports, Shipping & Waterways

As far as commodity transported is concerned we can see from table 3 that Food grains excluding Pulses recorded the highest growth in traffic during April-March, 2020-21 at 162.2% followed by Sugar (51.8%), Iron Ore pellets/fine recorded (28.8%), Iron & Steel showed a growth rate of 19.9%, Other Ores were (18.8%), FRM-Dry showed (15.4%), Fertilizer recorded (12.2%) and LPG/LNG (10.9%). Project cargo recorded the highest negative growth of 38.8% followed by Cement (22.1%), POL-Products (20.4%), Thermal Coal (14.2%), Edible Oil (14.0%), Other Coal (11.0%), POL-Crude (10.0%), Other Commodities (8.4%), Coking Coal (6.9%), Container (2.2%) Pulses (0.3%) and FRM-Liquid (0.1%) over April-March, 2019-20 Amongst all the commodities, Container handled the maximum cargo of 143.69 million tonnes with a share of 21.4% followed by POL-Crude (20.3%), Iron ore/Pellets (10.6%), Thermal coal (10.6%), Others commodities (8.8%), POL Products (8.0%), Coking coal (5.5%), Other coal (3.5%), LPG/LNG (2.2%), Iron & Steel (1.6%), Fertilizer (1.5%), Edible oil

(1.5%), FRM Dry (1.1%), FRM liquid (0.9%), Other Ore (0.8%), Sugar (0.6%), Cement (0.5%), Food grains excluding Pulses (0.4%) and Project Cargo (0.1%) during April-March, 2020-21.

1.3 The influence of Pandemic on the shipping industry

The influence of Covid -19 on the seafaring industry was so sudden and tremendous that the shipping industry or any industry for that matter was not prepared to face the contingency. The pandemic had a great impact on cargo traffic. Some of the ways Covid -19 and the prolonged lockdown has to change the complete scenario of port management and cargo traffic. Some of the issues were as follows:

1.3.1. Port Congestion

In response to the pandemic, almost all the countries imposed lockdown and restricted the movement. Some retailers and manufacturers delayed the pickup of their cargo. The reason why the retailer and manufacturers failed to pickup of cargo as the warehouse were full or closed, some port did function during lockdown but those port had abridged labour force which aggravated the cargo overcrowding. This disrupted the supply chain and disrupted the flow of necessities and food. The cargo that remained unattended at port created congestion and which in turn caused a lack of space reduced the capacity for incoming cargo and containers

1.3.2. Supply Chain

The covid-19 pandemic has exposed the shipping industry to acute scarcities of critical medicinal apparatuses needed in the fight against the pandemic. The unexpected lockdown and measures taken to reduce the impact of the pandemic stopped the trade of vital component items and disturbed the supply chain.

1.3.3. Shortage of crew

Besides Indonesia China and the Philippines, India is the major supplier of crew members. The pandemic has caused around 40000 Indians crew sewing on ships to be stuck worldwide. The crew members and other workers on the port were allowed to work but were asked to be quarantined for fourteen days which created a shortage in the crew members

1.3.4. Insurance

Insurance implications arose due to the disruption of Shipping. Cargo owners, importers, insurers and risk managers all were affected. Accumulation of cargo, delay in the transport of the cargo. The delay clause, demurrage charges, deviation of the route, Force Majeure and interruption in transit has an impact on the insurance and its terms and conditions.

The Insurance implication of disruption consisted of the following:

- 1) Cargo and stock throughput: - shortage in the workforce reduced the capacity to distribute goods and effectively handle them. Cargo also got accumulated in the port for long deviation at the port and increased the volume. The storage area led stock awaiting their next destination.
- 2) Delay: - Most cargo and stock amount policies does not include loss or damage solely caused by delay.

1.3.5. Additional charges:-

Due to the pandemic, Ships were forced to deviate their routes to an alternate terminus per the government prohibition that caused additional costs. Although such cost was sub-limited to a certain extent, the added forwarding costs clause protracted added financial expenses.

1.3.6. Vulnerable goods:-

Products such as pharmaceutical products function on a string out and well-scrutinized schedule. The usual cover of marine insurance does not cater to the features of these goods which are prone to perishable and may have to be excluded as a result of the delay.

1.3.7. Legal disputes: -

The cargo proprietor contracts vessels to ports to consign cargo is required to recommend a safe port. This means that a harbour in which the container can securely halt, deport cargo operations and safely leave. Due to the closure of the envisioned port, the owners were forced to nominate alternate destination ports. The nature of the cargo should be considered before choosing the port of destination before transporting the cargo. It must necessary to get clearance from the health authorities of the port.

It is a process called free- pratique. In the countries where the pandemic appeared severe, the process of vetting the crew have taken time and this delay was considered as the responsibility of the shipowner rather than that of the charter. This unexpected difficulty caused a legal dispute between the shipowner and the characters. The unsettling effect of the pandemic caused losses and created confusion and conflict regarding the determination of who will bear the losses.

1.3.8. The declined demand for cargo:-

The health authorities of every country have introduced restrictions to avoid the danger of dispersion of Covid- 19 infections. This led to the decline in the volume of exports and import of goods between countries. Moreover, the postponement in such conveyance due to extra difficulties of quarantine has led to the further decline of demand. Moreover, perishable goods were not transported due to the waiting period of 14 days.

1.3.9.The disagreement in laytime settlement:-

The owners grant the vessels to charters for a certain period for fixed costs. The overriding of such period leads to added costs which mean the time surpassing the fixed time should be paid for.

1.4 Key Policy Announcements

Some policy measures have been announced by the Ministry of Shipping in recent times aimed at improving the comfort of doing business in the maritime sector as well as providing relief from the pandemic led disruptions.

1.4.1 Covid-19 related relief measures:

- Major Ports were asked not to charge any penalties or fees on any Seaport user for any delay as a result of COVID-19
- Penalties, demurrages charges, fees, rentals imposed on any Seaport user on account of delay in loading or unloading or evacuation of cargo caused due to lockdown measures were exempted.
- Major Ports were permitted to extend the timeline for completion of projects under implementation along with the waiver of penal consequences for existing and operational projects under the Private Public Partnership model.
- Invoked Force Majeure clause permitting extension of the period of completion of the project

1.4.2 Sarod Ports

- Affordable Dispute Redressal Mechanism for disputes about the maritime sector.
- Intended to resolve the disputes in a fair and just manner that would result in savings in time and legal expenses.
- Improves ease of doing business.
- Would help attract private sector investment

1.4.3 Major Ports Authorities Bill 2020

- Reorientation of the governance model in central ports to landlord model, which enables leasing of port infrastructure to private operators.
- Aim to bring about independence and professional governance in the operation of major ports.

1.5 Conclusion

The maritime domain which is considered to be the enabler of globalization is the medium via which 90% of the world trade is transported. Considering the present situation because of the deadly pandemic the most important thing is to ensure that cargo is safely brought to the ports. Although the precise impact of the Covid crisis is still unfolding, it has created a tremendous impact on the global supply chain. Significant changes have been seen in the operation of ports in India. Sustainable shipping, ship pollution control and decarbonization remain priorities. The unexpected pandemic and social distancing norms strengthened digitalization and dematerialization which in turn promotes greater technology uptake to connect data for monitoring and policy responses. With a noteworthy increase in the use of electronic

documentation, cybersecurity has become a major concern. Fear of cyberattacks calls for strengthening cybersecurity. The improvement in the shipping sector would be dependent on the pace and extent of the economic recovery, domestically as well as globally. While cargo traffic is expected to sustain the monthly improvements, the volumes for the financial year 2021-22 would be lower than the pre covid times.

References

- Doumbia-Henry, C. (2020). Shipping and COVID-19: protecting seafarers as frontline workers. *WMU Journal of Maritime Affairs*. <https://doi.org/10.1007/s13437-020-00217-9>
- Notteboom, T., Pallis, T., & Rodrigue, J. P. (2021). Disruptions and resilience in global container shipping and ports: the COVID-19 pandemic versus the 2008–2009 financial crisis. *Maritime Economics and Logistics*. <https://doi.org/10.1057/s41278-020-00180-5>
- Ocheni, S. I., Ogaboh Agba, A. M., Agba, M. S., & Eteng, F. O. (2020). Covid-19 and the tourism industry: Critical overview, lessons and policy options. *Academic Journal of Interdisciplinary Studies*. <https://doi.org/10.36941/AJIS-2020-0116>
- Rahman, N. A. A., Rahim, S. A., Ahmad, M. F., & Hafizuddin-Syah, B. A. M. (2020). Exploring COVID-19 pandemic: Its impact on the global aviation industry and the key strategy. *International Journal of Advanced Science and Technology*.
- Tirschwell, P. (2020). Technology: Digitalization in container shipping is inevitable, but the impact is unclear. *JoC Online*.
- Yazır, D., Şahin, B., Yip, T. L., & Tseng, P. H. (2020). Effects of COVID-19 on the maritime industry: a review. *International Maritime Health*. <https://doi.org/10.5603/IMH.2020.0044>
- Zhang, Y. F., Gong, J. W., & Yin, M. (2020). Influences and response measures of COVID-19 epidemic on shipping and port industry in China. *Jiaotong Yunshu Gongcheng Xuebao/Journal of Traffic and Transportation Engineering*. <https://doi.org/10.19818/j.cnki.1671-1637.2020.03.015>
- <https://www.indianmirror.com/indian-industries/2020/shipping-2020.htm>
- www.ibef.org
- <http://shipmin.gov.in>
- <http://data.shipmin.nic.in/>