EVALUESERVE

Panama Canal – An Emerging Challenge for Global Logistics Market

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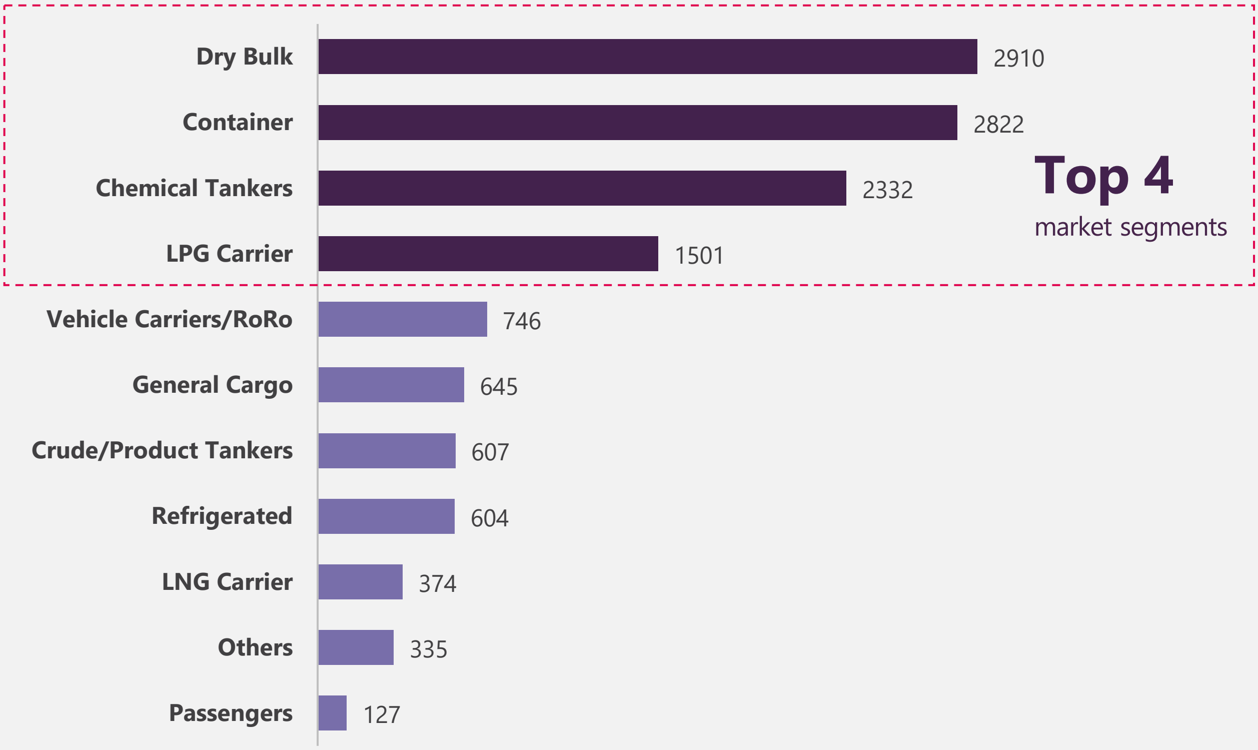
Panama Canal and Global Shipping

The Panama Canal was opened almost 110 years ago to link the Atlantic and Pacific Oceans to create a waterway between the Atlantic and Pacific Oceans that would support international trade. In the early twentieth century, the canal was considered an engineering marvel due to the complex design involved in lifting up ships weighing thousands of pounds to the level of the Alajuela and Gatun lakes, which were created to reduce the amount of excavation work required to build the canal.

Fast track to the present. The canal, now managed and operated by the government-owned Panama Canal Authority, supports close to 6% of global maritime trade and 16% of US-borne trade. With an estimated 14,000 ships passing through it each year, the Panama Canal is considered one of the busiest shipping routes in the world. It has been designed and expanded in such a way that more than 97% of modern container ships can easily pass through it to reach various destinations, thereby shortening their trip by more than 13,000 km and saving both time and money.

Panama Canal Transit by Market Segment in 2022



Source: Canal De Panama Statistics

In terms of long tons, cargo containers are the largest transit segment shipped through Panama Canal Northbound (Pacific to Atlantic), while petroleum products are the highest commodity shipped through Panama Canal Southbound (Atlantic to Pacific), with liquefied gas, diesel, and gasoline making up a bulk of shipments.

Dry bulk shipped through the canal primarily includes grains such as barley, corn, rice, sorghum, soybean, wheat, etc., originating in the US. They are destined for China, the western coast of South America, Japan, and the western coast of Central America. Within chemicals, ammonium compounds, caustic soda, methanol, and miscellaneous chemicals remain the major sub-commodity shipped on the Southbound transit route.

Top-10 Cargo Origin and Destination Countries in 2022

Rank	Country	Origin	Destination	Intercoastal	Share
1	US	146,761,755	69,187,394	2,048,904	74%
2	China	24,503,123	37,449,920	-	21%
3	Japan	6,114,529	32,424,894	-	13%
4	Chile	12,762,178	17,436,560	-	10%
5	Republic of Korea	11,978,563	16,817,766	-	10%
6	Mexico	8,234,960	15,643,526	210,166	8%
7	Peru	7,186,764	11,989,747	-	7%
8	Colombia	9,865,886	7,698,118	1,053,522	6%
9	Ecuador	6,341,550	8,058,795	-	5%
10	Panama	1,084,160	10,949,996	28,427	4%

Source: Canal De Panama Statistics. Percentage of share of cargo has been calculated based on the assumption that each ton of cargo will have an associated origin and destination for every country and therefore the share column should not be added to avoid double counting.

The Panama Canal supports 180 maritime routes that link 1,920 ports across 170 countries. It has also led to the creation of terminals for new types of cargo, such as LPG export terminals at Cove Point and Cameron in the US and at Port of Point Fortin in Trinidad and Tobago.

Water Shortage in Panama and Its Impact

The Panama Canal has been made possible by the two artificial lakes, Alajuela and Gatun, formed by damming the Charges River. Climate change and a lack of rainfall in the Panama region have resulted in low water levels in the artificial lakes, making it difficult for ships to pass through. The year 2019 was the worst in the canal's history. However, experts believe the current year will be even worse; the water level of the lakes was at a four-year low in Q3 2023.

To make things worse, an El Nino system (a climate pattern that describes the unusual warming of surface water) is building up in the Pacific Ocean and is expected to disrupt normal weather patterns by the end of this year, eventually resulting in severe drought and higher-than-usual temperatures in Panama. As Each ship passing through the Panama Canal needs more than 200 million liters of water to glide through a series of tiered locks, in adequate rainfall and a shortage of water could create grave challenges for the canal and businesses that depend on it.

The Panama Canal Authority has taken some steps to deal with the water shortage, such as limiting the weight of shipments that can pass through the canal. Also, the number of daily transits has been reduced to 32 ships, compared with 36-38 when the canal operates at full capacity. These limits have resulted in a backlog of 154 ships and fewer booking slots; wait times have increased to 21 days, along with surcharges for vessels traversing the canal.

Experts warn that continued low water levels could lead to conflicts between the local population and the canal, as three cities, including the capital of Panama, rely on freshwater from the lakes.

Another age-old problem cited by the administrators of the Panama Canal is keeping the saltwater level within the threshold, as sea water mixes with freshwater every time the gate is opened; the water treatment plants in the canal do not have desalination capacity.

How Ocean Freight Companies are Tackling the Challenge

Intermodal Transport:

Some shipping companies are using the regional rail network to get around the canal. They unload containers at the Pacific port of Balboa and reload them on to the ships at the port of Colon (Caribbean) after the ship crosses the Canal. By doing this, they save a significant amount on toll due to lighter onboard cargo loads.

Singaporean flagged vessel Ever Max, owned by the Taiwanese shipping company Evergreen, adopted this method in the first week of August 2023; it unloaded 1,434 TEUs at the port of Balboa and transited the canal with 13,345 TEUs after paying a toll of USD1.5 million.

Freight Surcharges:

Due to draft restrictions in the canal, several shipping companies have started imposing container surcharges to transport goods between China and the East Coast of North America and the US Gulf Coast.

Since June 1, 2023, French Carrier CMA CGM started imposing a surcharge of USD300 per container for shipments between Northeast Asia / China and the East Coast of North America, the US Gulf region, and northern Brazil.

Similarly, since July 1, 2023, German shipping company Hapag Lloyd started imposing a per container surcharge of USD260, called the Panama Canal charge, on transit through the canal.

The reason for charges is the fact that shippers can transit through the canal with less cargo and more ships need to be deployed to transport increased containers.

Alternative Routes:

Energy companies have already started deviating from the usual route due to long waiting times, even though the canal is the quickest route to reach Asia or the west coast of South America from the US Gulf Coast. Clean tankers that carry petroleum products are shifting their transit preference to the Atlantic Basin.

Cheniere Energy confirmed in July 2023 that due to higher wait times it will avoid the canal to ship LNG to Asia when demand builds up. The company will use alternative routes, such as sailing through the Suez Canal, or undertake a month-long journey around the Cape of Good Hope to reach its destinations.

Conclusion

Traffic at the Panama Canal is likely to be a major concern for procurement managers, as it can indirectly lead to inflation across the world. Higher transit time and increased shipping costs can eventually result in supply shortages and higher product prices. Experts believe that a 20% increase in shipping costs can boost inflation by 0.15% a year later, as the effects are not immediately visible. Currently, shipping rates are lower than during the pandemic but a spike in demand can make the market unstable and push up inflation rates.

Procurement managers must constantly monitor the logistics market to ensure business continuity and robust supply chain planning. Disruption in waterways is not something new and has occurred in the past (e.g., blockage of Suez Canal by Ever Given or low water levels in the Rhine in 2018.

Companies must invest in network optimization technologies (such as route planning, demand planning, manufacturing / distribution capacity planning, etc.) to assess lead time, delivery costs, shipment frequency, and feasibility analysis through what-if scenarios to ensure business continuity. The ultimate objective should be to meet customers' demands without any supply chain hindrance and at optimal costs.

This will require procurement departments to work in conjunction with the finance, manufacturing, and demand planning divisions to develop the right logistics strategy. Since 'just-in-time' delivery does not hold good in the short-term, considering the disruptions expected in the Panama Canal until 2024 by experts, companies should look at 'just-in-case' scenarios by communicating in advance with suppliers to maintain optimum inventory levels and ensure smooth operations.

Alternatively, procurement managers can look at near-shoring opportunities without compromising on product quality. Bringing supplies closer to demand points will not only reduce lead times but can evolve into a long-term strategy for supply chain resiliency.

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About the Author

Siju Panachickal Samuel

Senior Analyst, Procurement and Supply Chain Consulting

Siju has over five years of experience in supporting procurement and supply chain functions of corporates across sectors.

E: siju.samuel@evalueserve.com

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