



Ports & Maritime Affairs Annual Report | 2023



وزارة المواصلات والاتصالات
Ministry of Transportation
and Telecommunications

Table of Contents

| | |
|---|----|
| Highlights Summary | 1 |
| Performance Summary | 2 |
| Projects & Initiatives Summary | 3 |
| Khalifa Bin Salman Port's Performance Dashboard | 5 |
| Vessel Traffic | 6 |
| Container Throughput | 7 |
| General Cargo Throughput | 8 |
| Total Import/Export TEUs | 9 |
| Transshipment TEUs & Moves | 10 |
| Vehicle Import Volumes (RORO) | 11 |
| Berth Productivity | 12 |
| Gross Crane Productivity | 13 |
| Port Hours Saving | 14 |
| Gate Turn Around Time & Gate Transactions | 15 |
| Private Jetties Bulk Cargo Handling Dashboard | 18 |
| Ports & Maritime Affairs' Performance Dashboard | 20 |
| Commercial Affairs | 21 |
| Logistics Zones | 23 |
| Port Operations | 24 |
| Marine Traffic Control | 25 |
| Marine Technical Services | 27 |
| Marine Safety & Environmental Protection | 28 |
| Ship Registry & Seamen Affairs | 30 |
| Security & Safety | 32 |
| Ports & Maritime Affairs' Revenue | 34 |

Highlights Summary

Performance & Achievements



9% increase in the number of ship and facility inspections



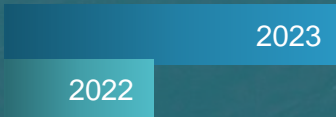
32% increase in commercial licensing related activities



9% increase in total vessel traffic

Cruise vessel traffic increased by

129%



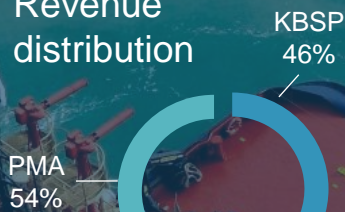
Conducted a comprehensive survey of all navigational marks (AtoNs) in Bahrain for the first time.



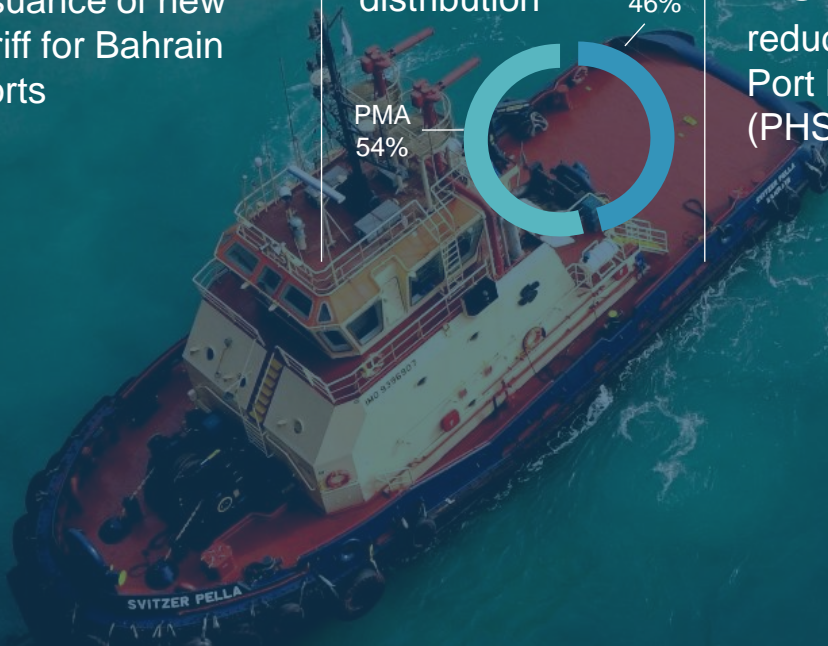
Launch of **1st** edition of Minaei award

Review and issuance of new tariff for Bahrain Ports

Revenue distribution



18.35% reduction by way of Port Hours Savings (PHS)



Performance Summary

The year 2023 was a year of successes and challenges for the Ports and Maritime Affairs with continued efforts and strong focus being invested in increasing performance and efficiency and further developing regulations.

At Khalifa Bin Salman Port (KBSP), the total number of vessels berthing in 2023 reached 773 which is a 9% increase compared to 2022. Container vessels accounted for 54% of the total vessel traffic whereas General Cargo accounted for 44%. This in turn reflected on total throughput TEU whereby container throughput reached 404,236 TEUs in 2023, increasing by 5% compared to 2022 whereas General Cargo throughput recorded 360,248 TEU, a 74% decrease compared to the previous year. This decline is mainly due to the shift of aluminum cargo from general to containerized cargo.

Transshipment witnessed a remarkable increase of 2001% in volume with 8,278 TEUs transshipped in 2023 compared to 394 TEUs in 2022. This marked increase is due to restrictions on the shipment of scrap from the UAE to India which resulted in cargo being shipped from UAE to Bahrain for onward transshipment to India.

In terms of port productivity, berth, gross crane, and gate time key indicators saw reduced productivity whereby berth productivity decreased by 8%, gross crane decreased by 1%, and gate turn time witnessed a 2% increase in waiting time. The berth productivity decrease is due to the structural change in the types of vessels calling at the port whereby productivity was compromised owing to the increase of small sized vessels (below 1000 moves) and decrease in larger sized vessels (above 1000 moves) which result in lower berth productivity. Meanwhile, gross crane performance was slightly impacted as a result of newly deployed technologies - crane OCR systems and truck alignment systems - which took time to phase in. By Q3 2023, both Berth Productivity Per Hour (BMPH) and Gross Productivity Per House (GMPH) recovered after the stabilization of the new technology.

Furthermore, although vessels below 1000 moves cause lower berth productivity compared to larger vessels, vessel idle time dropped by 21% compared to 2022 due to identification of waste buckets which resulted in an 18.35% reduction by way of Port Hours Savings (PHS) and a total of 1,121 hours of port stay being returned to vessel operating customers.

October 2023 saw the return of cruise vessels with the total number of cruise vessels increased by 129% compared to the previous year and included a maiden port call from one cruise line - Norwegian Cruise Line.

Bulk handling at private jetties saw a slight increase of 0.4% compared to 2022 with liquid bulk recording a 6% increase whereas solid bulk recorded a 1% decrease.

On the regulatory side, the licensing activities increased by 32% compared to 2022 with a total of 292 licenses issued by Port Affairs in 2023.

Projects & Initiatives Summary

Several projects and initiatives were launched during 2023 with continued efforts and strong focus being invested in enhancing performance and efficiency and further developing regulations.

As part of KBSP's transformation journey, several automation and digitization initiatives were launched in 2023 that aim to provide more efficient traffic flow and turnaround time. These include the new gate automation r development project which will greatly decrease the amount of manual work required per gate transaction via a system of OCR cameras, appointment systems, and other technologies and the Truck Appointment System (TAS) project which will allow truckers to create and update appointments online.

A pioneering solar initiative, worth approximately BHD3.8 million, was also announced in 2023. Upon project implementation, the terminal will reduce its carbon emissions by 65% while also securing a reliable and sustainable source of energy, effectively making Khalifa Bin Salman Port the region's first fully energy-sufficient seaport.

On the regulatory side, a tariff review was conducted, and a revised tariff was issued by the end of the year.

A comprehensive Aids to Navigation (AtoN) survey was also conducted in 2023 as part of PMA's commitment towards maritime safety and ensuring the adoption of international regulations and global standards to enhance safety of shipping and navigation to facilitate maritime traffic. The survey, the first of its kind, covered a water area of 7,000 km² with a coastline of 161km to identify and evaluate the condition and placement/location of AtoNs in Bahraini waters.

To recognize excellence and innovation in operations, PMA launched a new initiative - Minae Award - in 2023 which aims to recognize private jetty operators' commitment to adhering to regulations and acknowledge their contributions to further develop best practices in the industry.



Private jetty operators and PMA management at Minae Award's ceremony

Khalifa Bin Salman Port Performance



Khalifa Bin Salman Port's Performance Dashboard

Throughput Performance

Total Import Throughput



195,729 TEU

↑ +2% vs 2022

Total Export Throughput



199,253 TEU

↑ +4% vs 2022

Total Container Throughput



404,236 TEU

↑ +5% vs 2022

Total Vessel Traffic



773

↑ +9% vs 2022

Transshipment Throughput



8,278 TEU

↑ +2001% vs 2022

Total RORO



36,875

↑ +12% vs 2022

Total General Cargo



360,248 FT

↓ -54% vs 2022

Operational Performance

Average Berth Productivity



68.1 Moves

-8% decrease in productivity vs 2022

Gross Crane Productivity



36.2 Moves

↓ -1% vs 2022

Gate Turnaround Time



23.8 Min

↓ -2% vs 2022

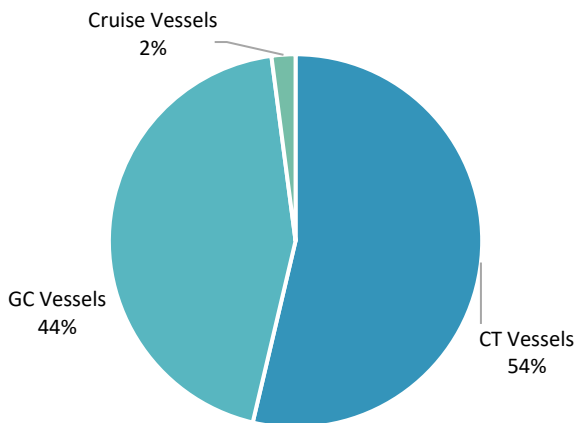
Vessel Traffic

The total number of vessels berthing at KBSP in 2023 reached 773 resulting in a 9% increase in comparison to the year 2022 which reached 707 vessels.

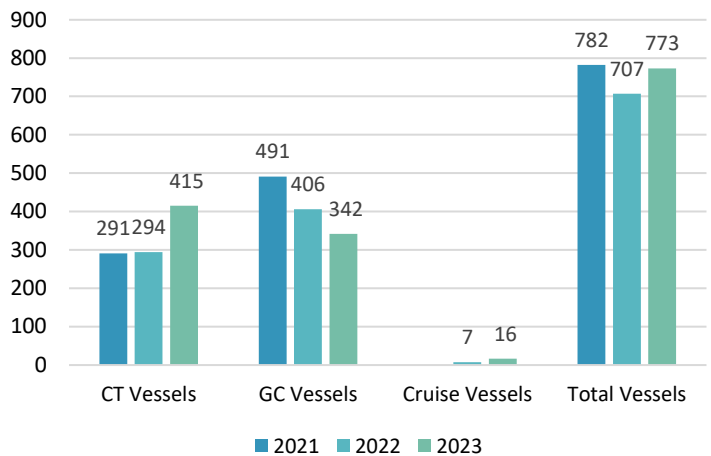
The post pandemic revival of cruise business resulted in increased number of calls in 2023 compared to the previous year. Meanwhile, aluminum volumes reverted from GC to CT during 2023. This combined with the drop in project cargo volumes contributed to the decrease in GC vessel calls in 2023.

- **Container vessels traffic:** increased by 41% with a total of 415 vessels calling at KBSP- this represents 54% of the total vessel traffic.
- **General Cargo vessels:** decreased by 16% with a total of 342 vessels calling at KBSP vs 2022 total 406 vessel calls – this represents 44% of the total vessel traffic.
- **Cruise vessels traffic:** increased by 129% with a total of 16 vessels calling at KBSP- this represents 2% of the total vessel traffic.

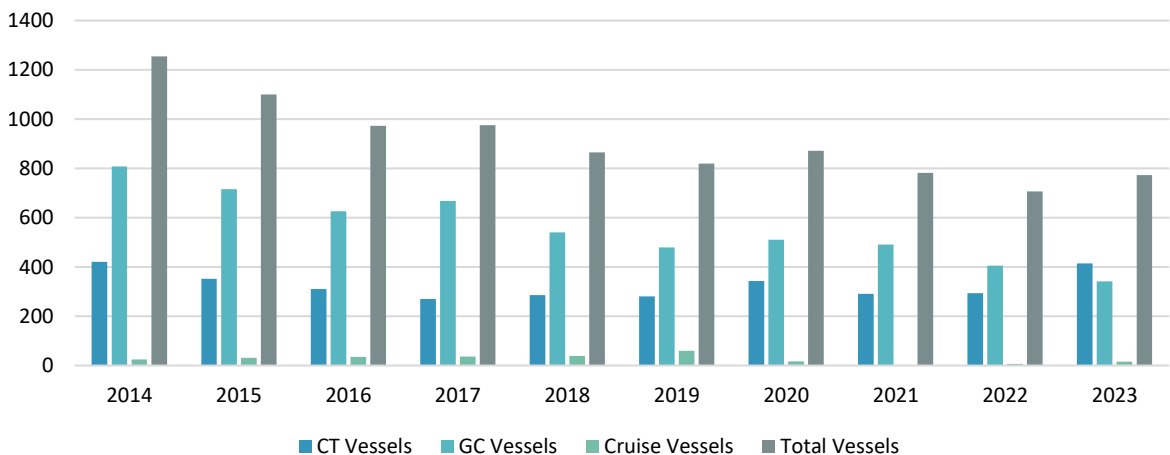
KBSP Vessel Traffic Split YTD 2022



KBSP Vessel Traffic



KBSP Vessel Traffic 2014 - 2023

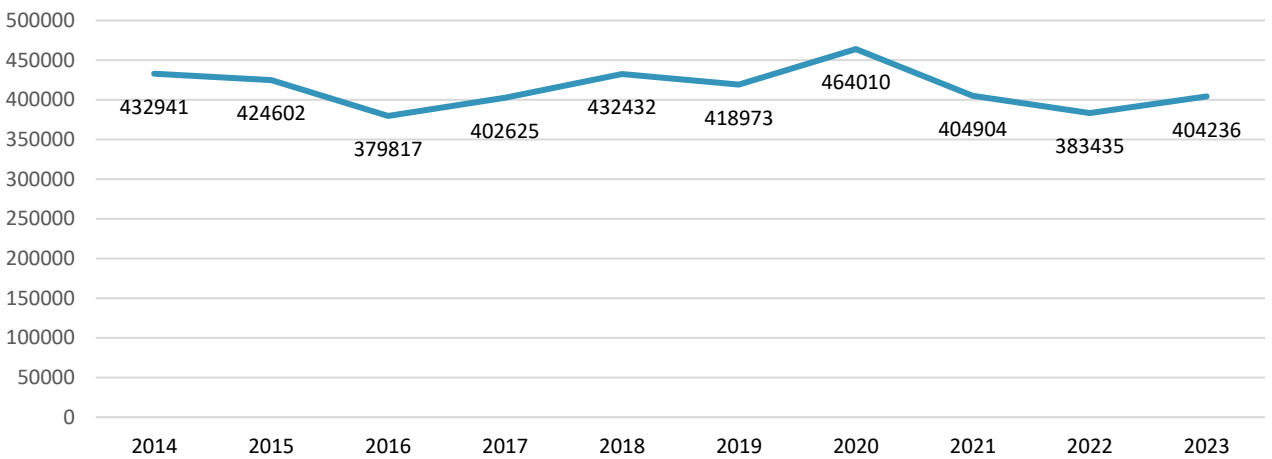


Container Throughput

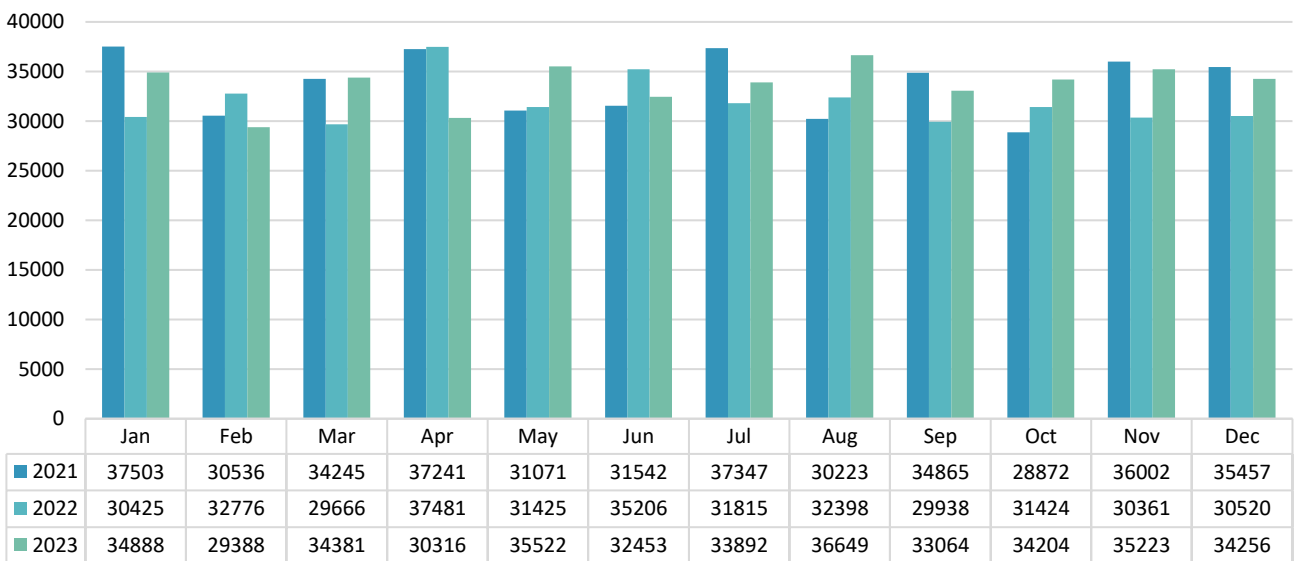
Container throughput is the measure of the total number of container TEUs (Twenty-foot Equivalent Units) handled at Khalifa Bin Salman Port, and the standard measure of productivity within a seaport.

The total Container Throughput volumes recorded in 2023 was 404,236 TEUs reflecting an increase of 5% compared to 2022. Increased import empties and export full units due to a shift in aluminum volumes from GC to CT is the primary reason for the increase in overall CT throughput.

Container Throughput Historical Volumes



Container Throughput



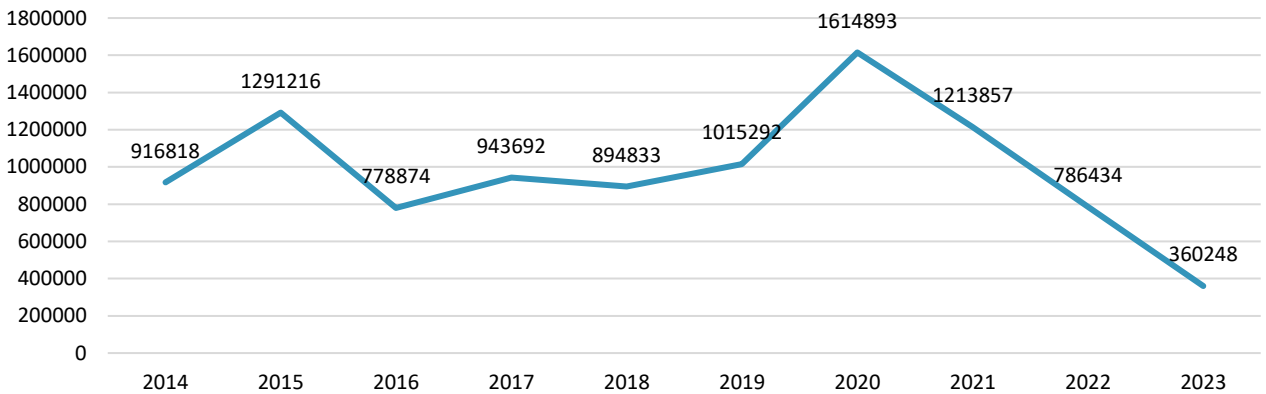
General Cargo Throughput

General Cargo throughput is the measure of the number of Freight Tones (FT) handled in Khalifa Bin Salman Port, as part of the port's productivity.

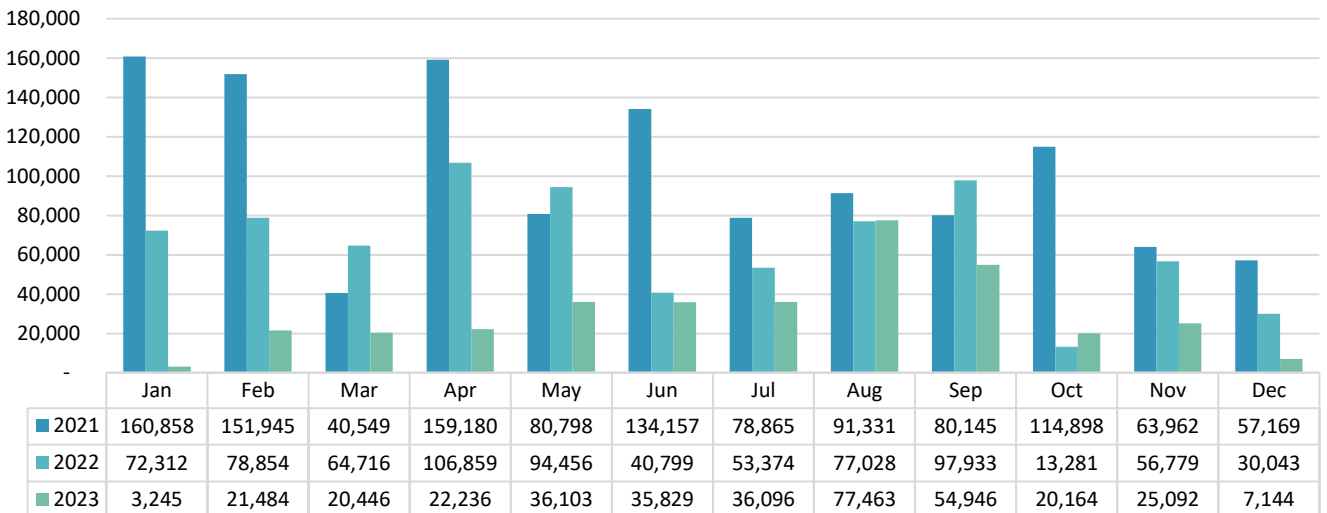
The general cargo throughput recorded in 2023 was 360,248 FT which is 54% decrease in Freight Tons handled within KBSP compared to 2022. This decrease in GC volume is due to aluminum cargo being shifted to CT and a decrease in project cargo volume.



General Cargo 10 Year Throughput FTs



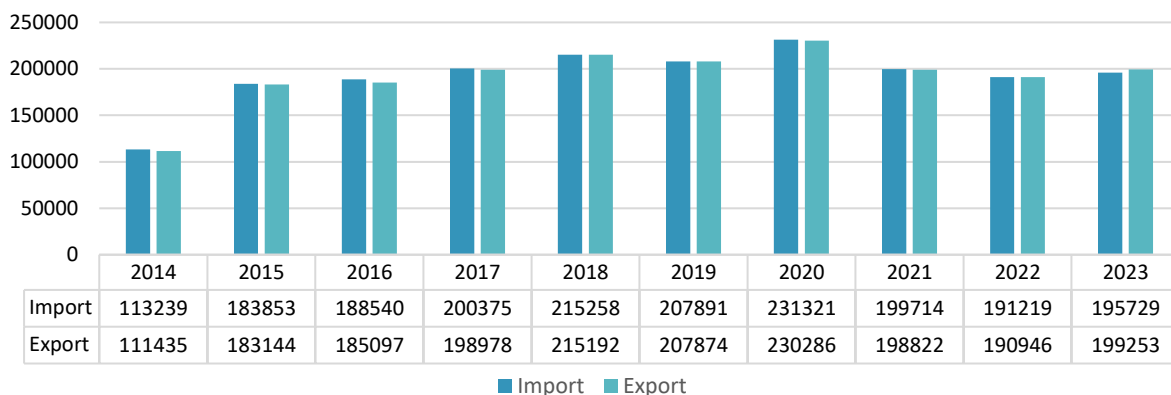
GC Throughput FTs



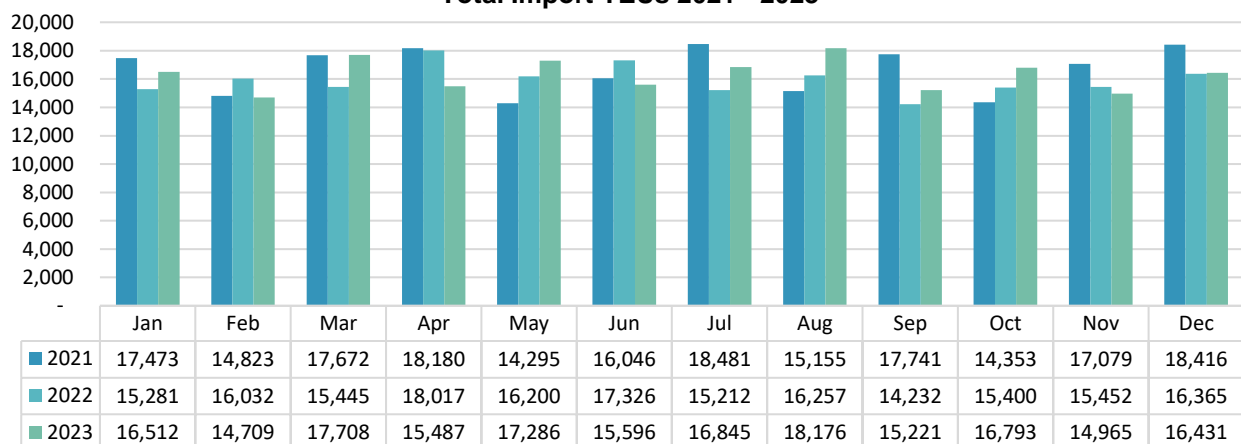
Total Import/Export TEUs

Import volumes registered a total throughput of 195,729 TEUs translating into an increase of 2% in comparison to 2022. Meanwhile export volumes registered a total throughput of 199,253 TEUs representing a 4% increase compared to 2022.

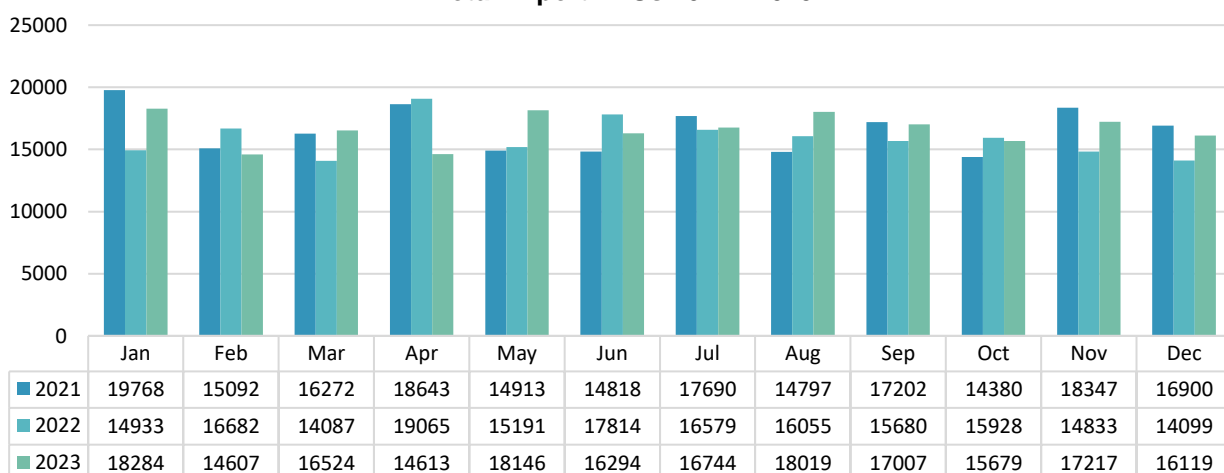
Annual Import / Export TEUs 2014 - 2023



Total Import TEUs 2021 - 2023



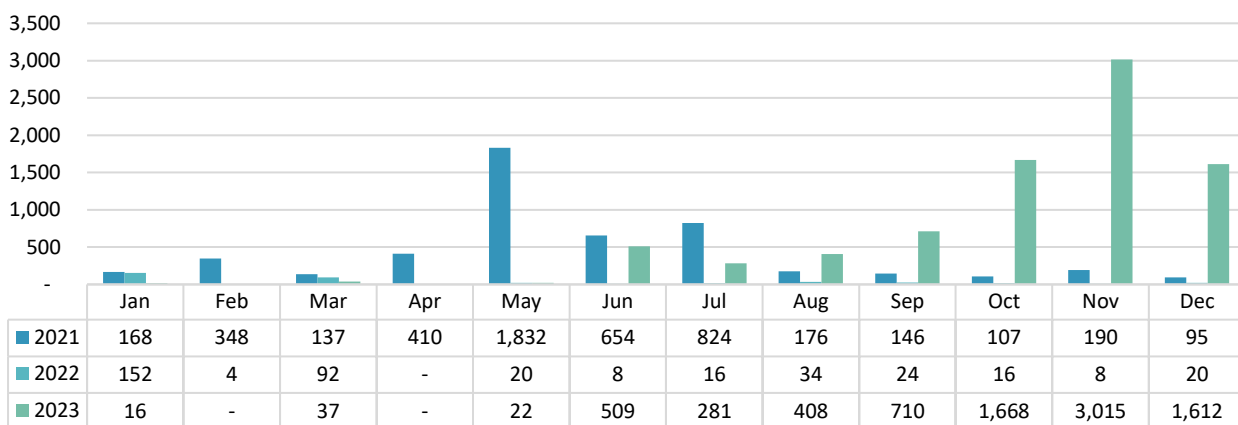
Total Export TEUs 2021 - 2023



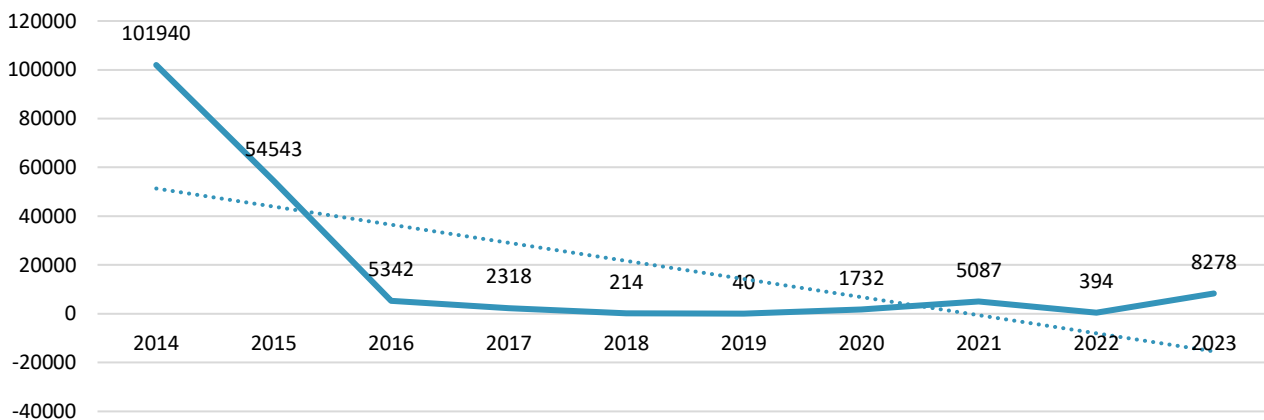
Transshipment TEUs & Moves

Transshipment volumes accounted for 8,278 TEUs in 2023, a 2001% increase in comparison to volume registered in 2022. Restrictions on the shipment of scrap from the UAE to India has resulted in cargo being shipped from UAE to Bahrain for onward transshipment to India, thus contributing to the increase of transshipment in 2023.

Transshipment TEUs 2021-2023



Transshipment TEUs 2014 - 2023

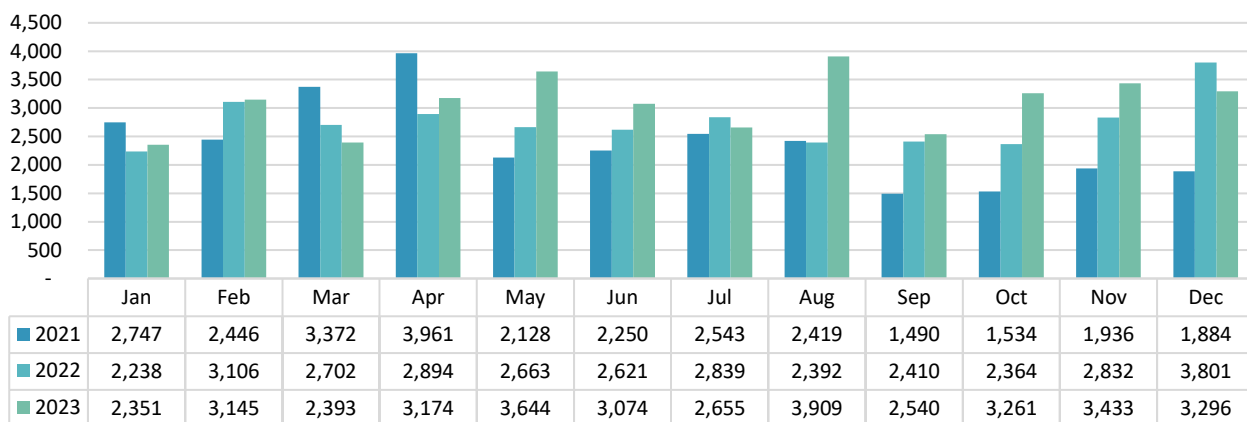


Vehicle Import Volumes (RORO)

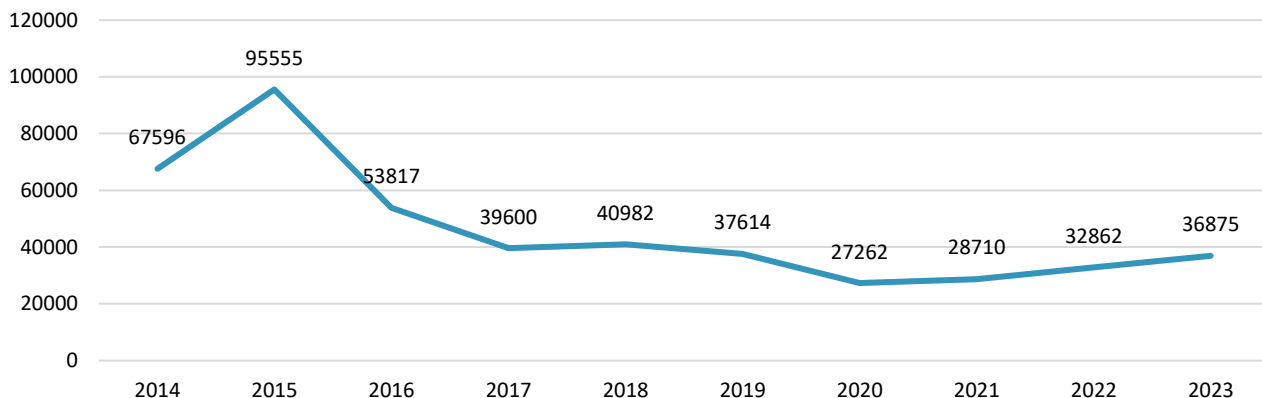
KBSP retains an adequate staging area for vehicles . The vehicle Import volumes (RORO) is the number of cars being handled within KBSP premises.

In comparison to 2022, the number of vehicles handled within KBSP demonstrated a 12% increase in the vehicle import volumes with a total of 36,875 vehicles recorded in 2023. A rise in local market demand for vehicles has resulted in the increase in RORO volume.

RO-RO Volumes



RO-RO Unit Volume

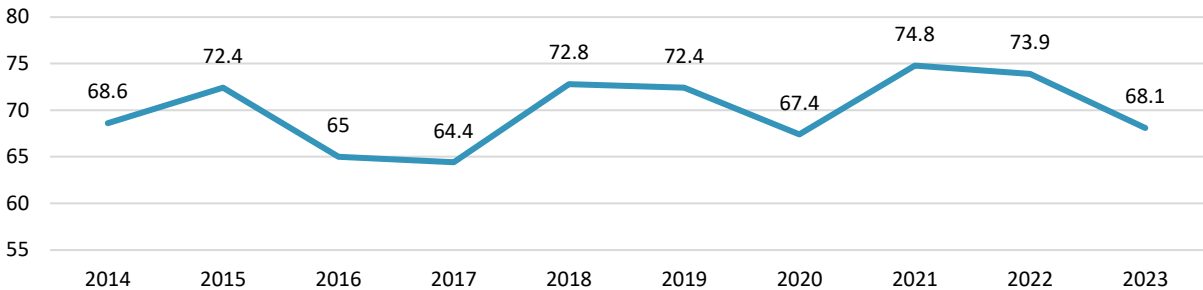


Berth Productivity

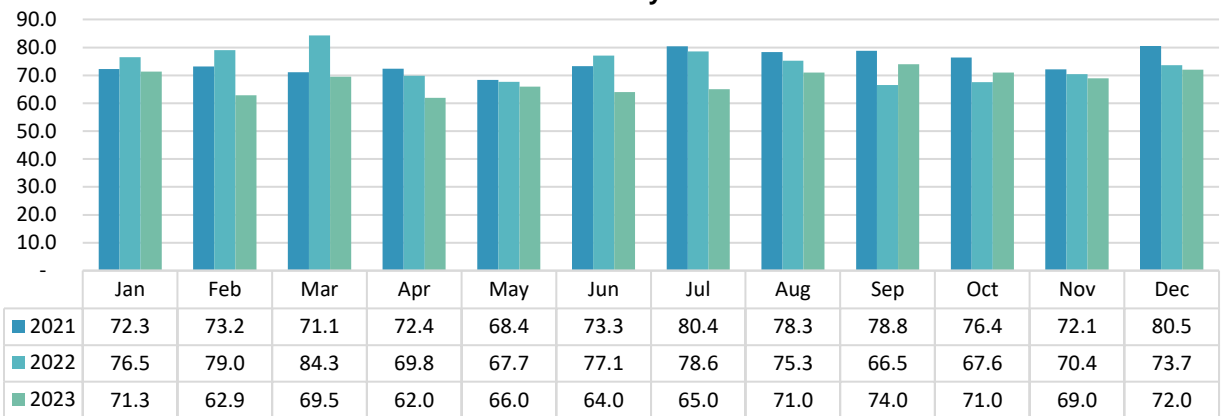
The berth productivity is defined as the gross moves per hour for a single vessel call or visit; it is the total container moves (on load, offload, and repositioning) divided by the number of hours for which the vessel is at berth. More moves per hour demonstrates a better performance as it is the average calculation of moves per vessel.

The berth productivity at Khalif Bin Salman Port decreased by 8% in 2023 with an average of 68.1 moves per hour recorded compared to 73.9 moves in 2022. This decrease is due to the structural change in the types of vessels calling at the port whereby productivity was compromised owing to the increase of small sized vessels (below 1000 moves) and decrease in larger sized vessels (above 1000 moves) which result in lower berth productivity.

Average Berth Productivity 2014 - 2023



Berth Productivity

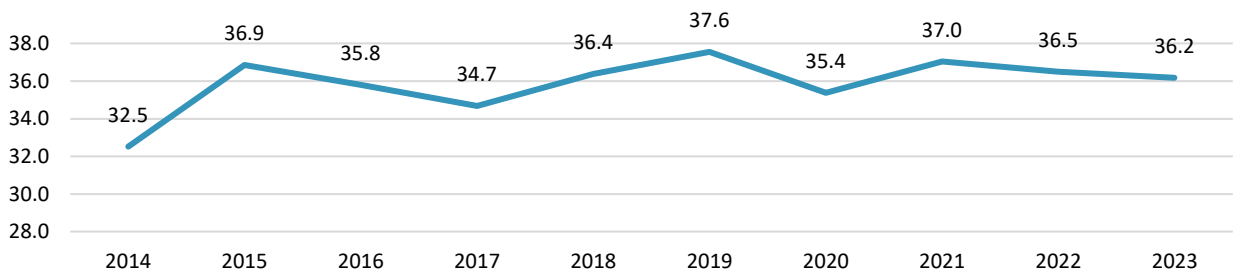


Gross Crane Productivity

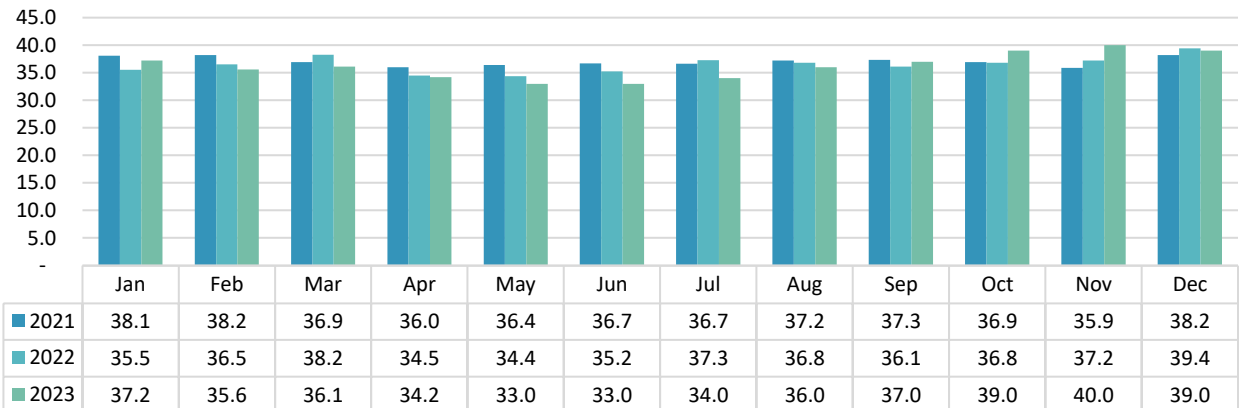
The Gross Crane Productivity (GCP) is the total number of moves per hour per crane, it is the determining factor of the port operation and performance efficiency. The Gross Crane Productivity figures show a 1% decrease with an average of 36.2 moves per hour recorded in 2023 compared to 36.5 moves in 2022. The productivity was slightly impacted due to newly deployed technologies - crane OCR systems and truck alignment systems - which took time to phase in. By Q3 2023, both Berth Productivity Per Hour (BMPH) and Gross Productivity Per Hour (GMPH) recovered after the stabilization of the new technology.



Average Gross Crane Productivity 2014 - 2023



Gross Crane Productivity

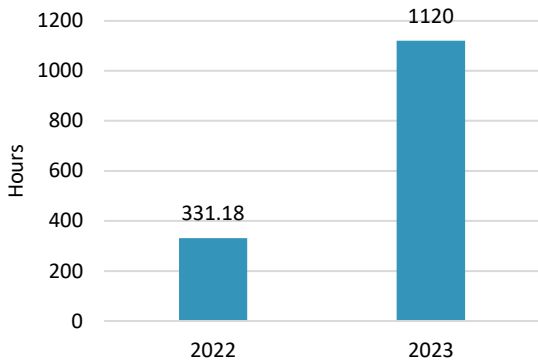


Port Hours Saving

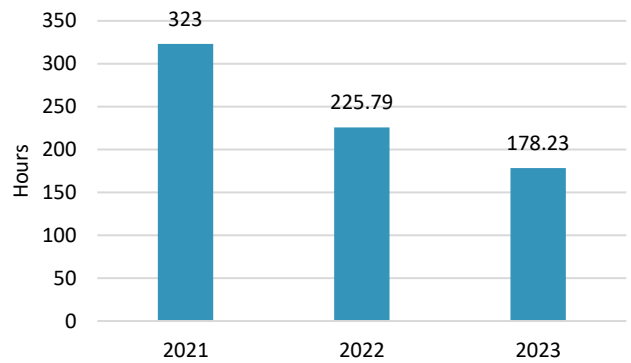
KBSP achieved significant port stay hour savings, reducing turnaround time by 18.35% and saving 1121 hours in 2023. This reduction is due to the identification of waste buckets by way of Port Hours Savings which along with the implementation of continuous improvement.

- Vessel Idle time dropped by 21% Vs 2022 and 44.8% Vs 2021
- Arrival Idle time dropped by 25.7% Vs 2022 and 48% Vs 2021
- Departure Idle dropped by 13.5% Vs 2022 and 40% Vs 2021

Port Hour Savings



Vessel Idle Time



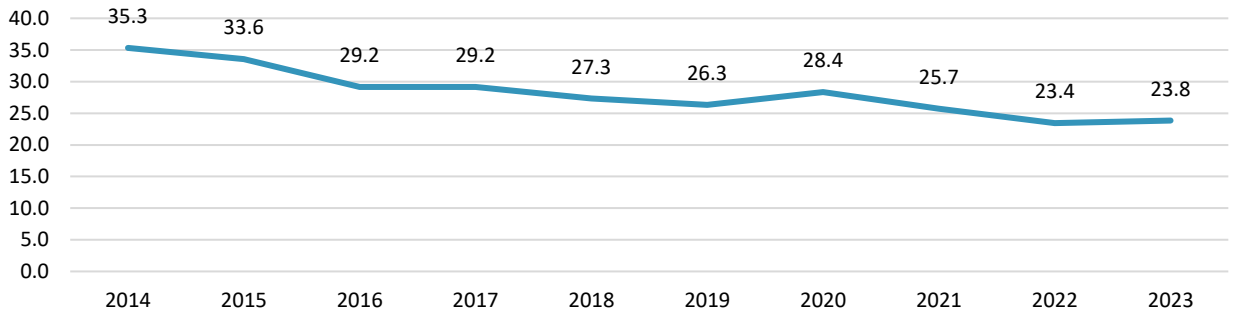
Gate Turn Around Time & Gate Transactions

Gate Turn Around Time

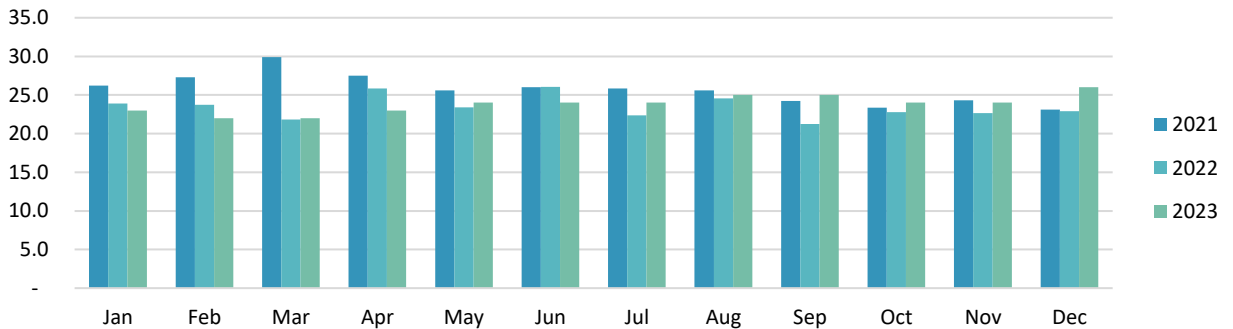
The gate turnaround time is the total time spent by a truck from the time it enters to the time it exits the port.

Over the past 10 years, KBSP's Gate Turn Around Time showed overall improvement in performance and efficiency, however, the year 2023 saw a 2% increase where the average time became 23.8 minutes compared to 23.4 minutes in 2022.

Average Gate Turn Time 2014 – 2023 (minutes)



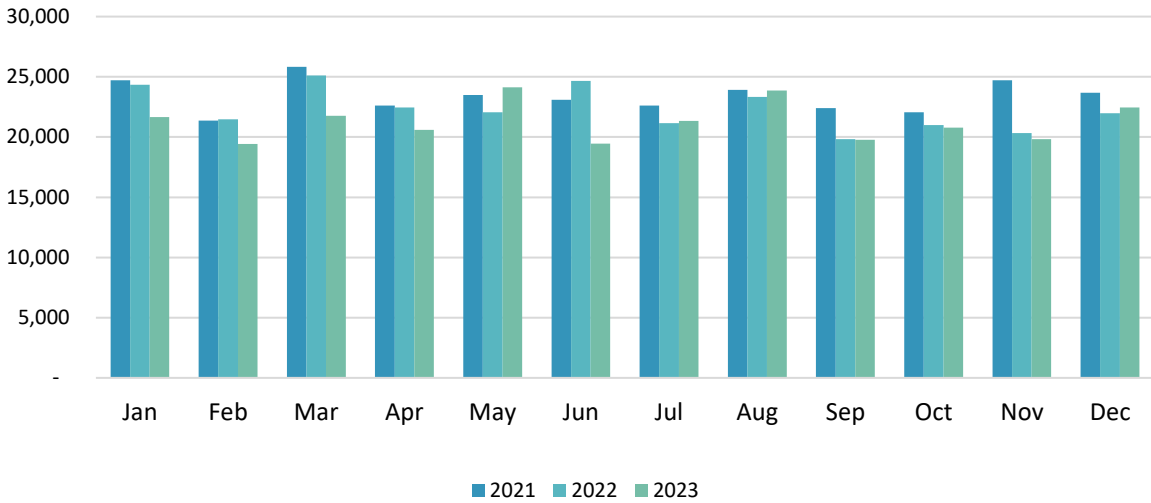
Gate Turn Time (minutes)



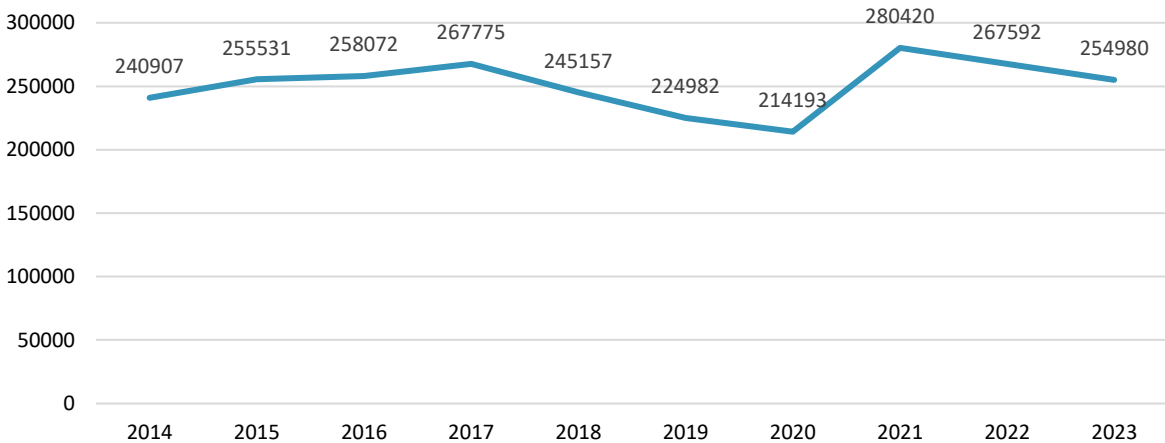
Gate Transactions

Gate transactions is the total number of trucks which pass through the Port's gate. In 2023, a total of 254,980 transactions were recorded which is a 5% decrease compared to 2022.

Gate Transactions



Annual Gate Transactions 2014 - 2023

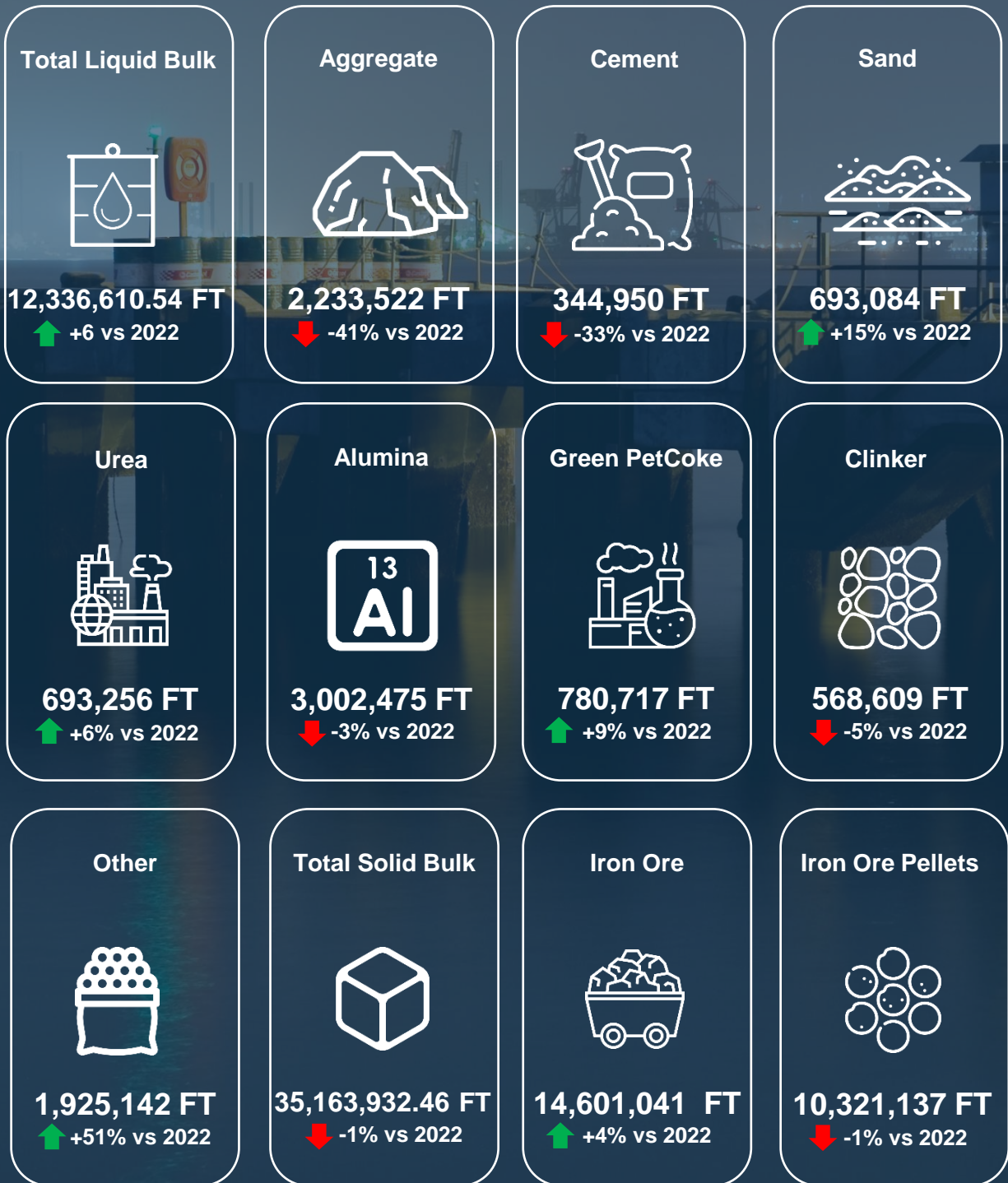




Private Jetties Bulk Cargo Handling Performance

Bulk Handling Total (Solid/Liquid)

Private jetties are owned by companies to handle their own cargo shipments. Bulk cargo is usually classified into dry and liquid; Dry bulk cargo refers to Aggregate, Cement, Sand etc. whereas Liquid usually refers to Oil, Gas and Petrochemical products. The volume of total bulk commodities imported and exported in the Kingdom Increased by 0.4% compared to 2022; Liquid Bulk increased by 6% and Solid Bulk materials decreased by 1% compared to the previous year.





Ports & Maritime Affairs' Performance

Ports & Maritime Affairs' Performance Dashboard

BLZ Occupancy Rate



70.6%

↓ -3.3% vs 2022

Total Private Jetty Inspections



137

↓ -11% vs 2022

License Activity



292

↑ +32% vs 2022

Total Navigational Marks



147

↑ +4% vs 2022

Vessel Visits*



2503

↓ -9% vs 2022

Departure Certificates



2,152

↑ +3% vs 2022

Marine Permits & Certificates



225

↓ -17% vs 2022

Small Ship Navigation Permits



8102

↓ -7% vs 2022

New Vessels Registered under Bahrain Flag <150 GT



12

↓ -8% vs 2022

Small Ship Registration (New + Renewal >150 GT)



2673

↓ -4% vs 2022

Ship & Facility Inspection



202

↑ 9% vs 2022

Pilot & Tug Master License



8

↑ 60% vs 2022

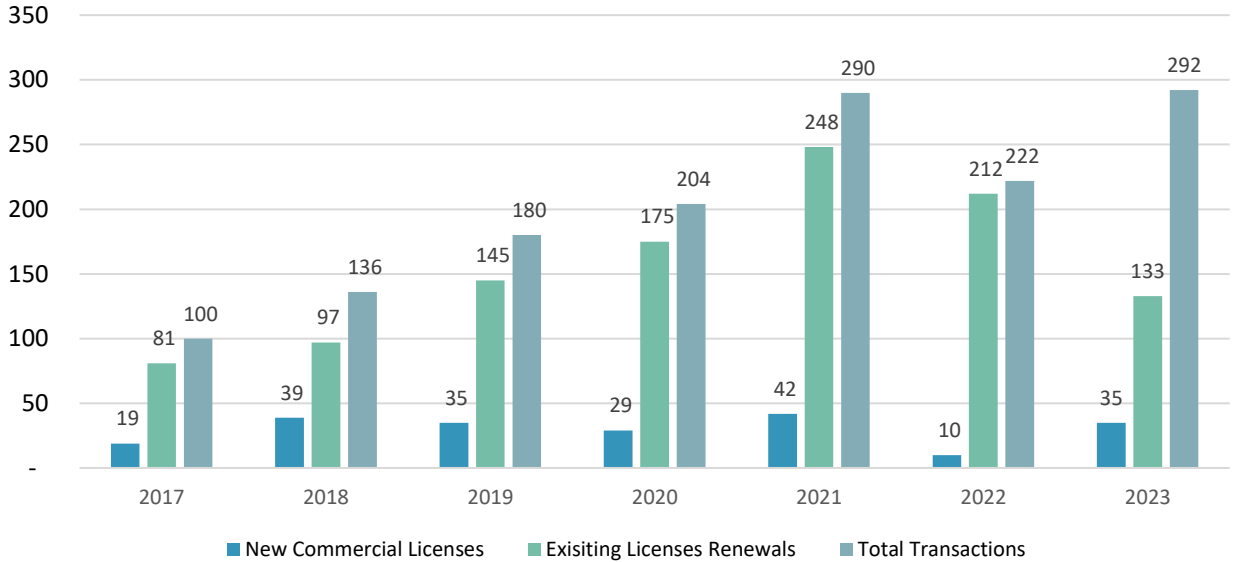
*Includes arriving/departing tugs and barges at Bahrain's ports and private jetties as well as vessels anchored at anchorage area

Commercial Affairs

The Commercial Affairs Directorate issues various licenses to companies that would like to engage in activities within the ports, maritime and logistics industry. A company is eligible for a license if it complies with all the rules and regulations and meets the requirements set by the PMA. A license to operate is issued upon review and approval of all documents.

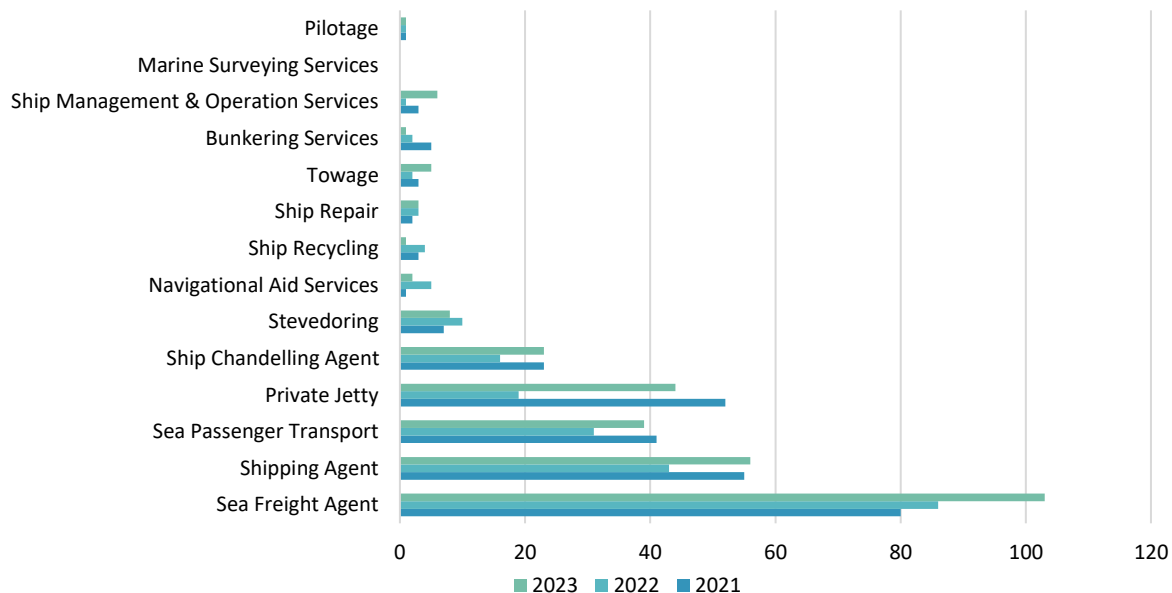
The total number of new licensed issued increased by 250% in 2023 and the total number of renewed licenses increased by 21%; total new and renewed license activity registered a 32% increase. The increase is due to natural economic growth and due to the fact that Private Jetty licenses hold a 2 Years validity and that corrective actions being taken to ensure that companies who do not have a license to practice the activity have now obtained one.

Commercial Licensing Activities Performance Comparison 2017 - 2023



The Ports and Maritime Affairs issues licenses with a 2-year validity for 14 different marine activities. In 2023, the top three activity licenses were for sea freight agent, shipping agent, and private jetty which account for 70% of the total transactions.

Commercial Licensing Breakdown By Activity



| | 2021 | 2022 | 2023 |
|--------------------------------------|------|------|------|
| Sea Freight Agent | 80 | 86 | 103 |
| Shipping Agent | 55 | 43 | 56 |
| Sea Passenger Transport | 41 | 31 | 39 |
| Private Jetty | 52 | 19 | 44 |
| Ship Chandelling Agent | 23 | 16 | 23 |
| Stevedoring | 7 | 10 | 8 |
| Navigational Aid Services | 1 | 5 | 2 |
| Ship Recycling | 3 | 4 | 1 |
| Ship Repair | 2 | 3 | 3 |
| Towage | 3 | 2 | 5 |
| Bunkering Services | 5 | 2 | 1 |
| Ship Management & Operation Services | 3 | 1 | 6 |
| Marine Surveying Services | - | - | - |
| Pilotage | 1 | 1 | 1 |

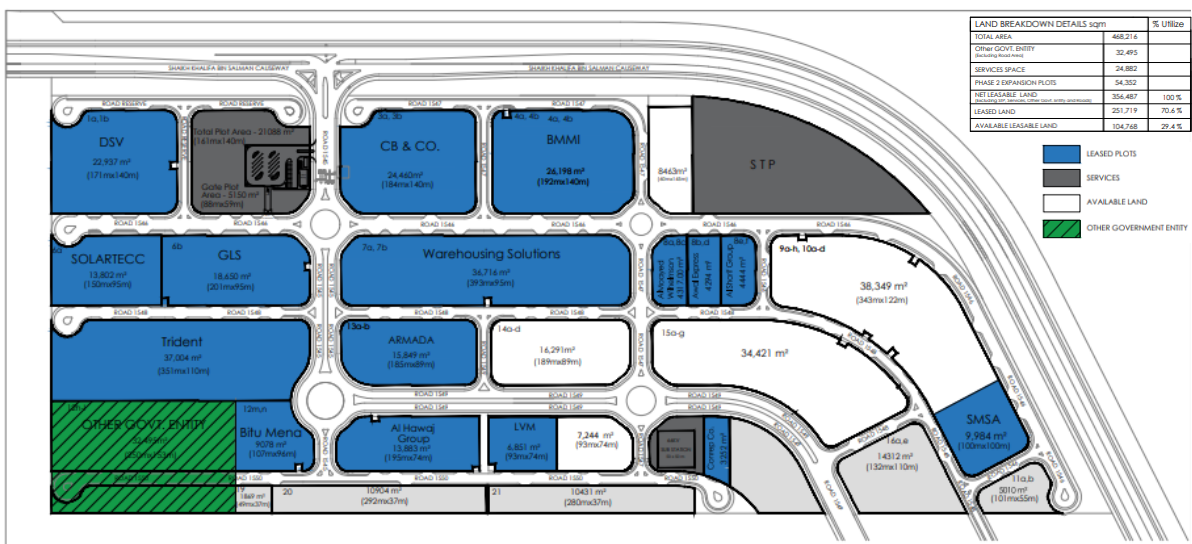


Logistics Zone

Operated by the Ports and Maritime Affairs at the Ministry of Transportation and Telecommunications, the Bahrain Logistic Zones is designed to offer local, regional, and international companies a base from which they can operate in a bonded (customs-free) area.

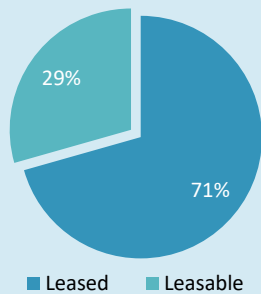
The total occupancy rate at the zone decreased in 2023 due to cancellation of the lease agreement for a plot size of 8,463m² which consequently reduced the occupancy rate to 70.6% with a total of 104,768 m² of leasable land available.

BAHRAIN LOGISTIC ZONE PLOT STATUS



NOTE: The reflected plot dimensions (length & width) are approximate

The total occupancy rate of the Bahrain Logistics Zone in 2023 was 70.6% in with 29.4% remaining as 'available leasable land' which consists of 5 plots.



Total Leasable Area
356,487m²

Leased
251,719m²
(70.6%)

Leasable
104,768m²
(29.4%)

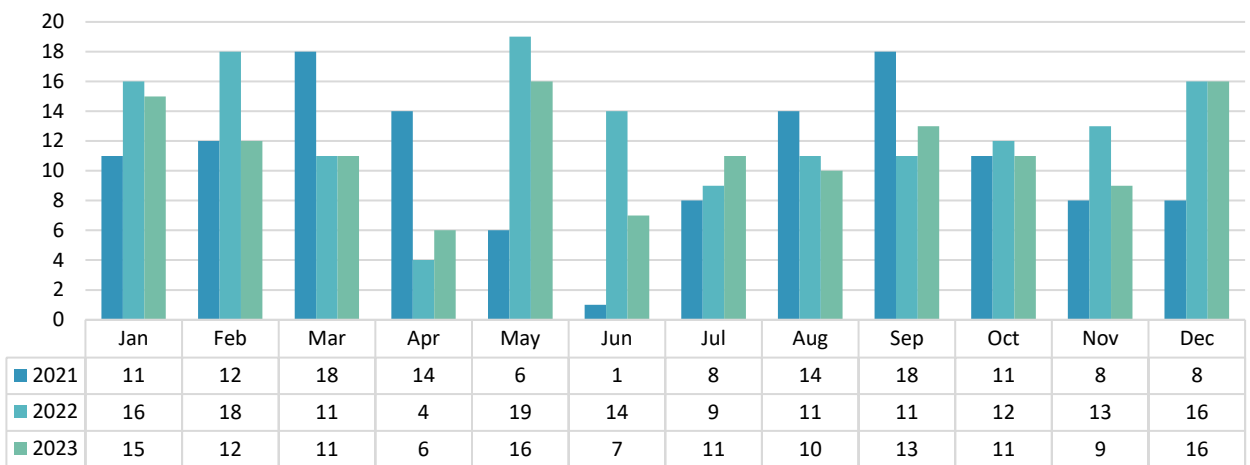


Port Operations

Private Jetty Inspections

As part of the Port Operations and Technical Services Directorate responsibility to monitor the operations of all private jetties and ports to ensure the relevant laws and regulations are adhered to, inspection activities continued in 2023 with a total of 137 inspections carried out during the year which is an 11% decrease compared to 2022. This decrease is due to several factors which included limitations in conducting reinspection visits to certain jetties, the closure of one of the private jetties, and ceased operations in others.

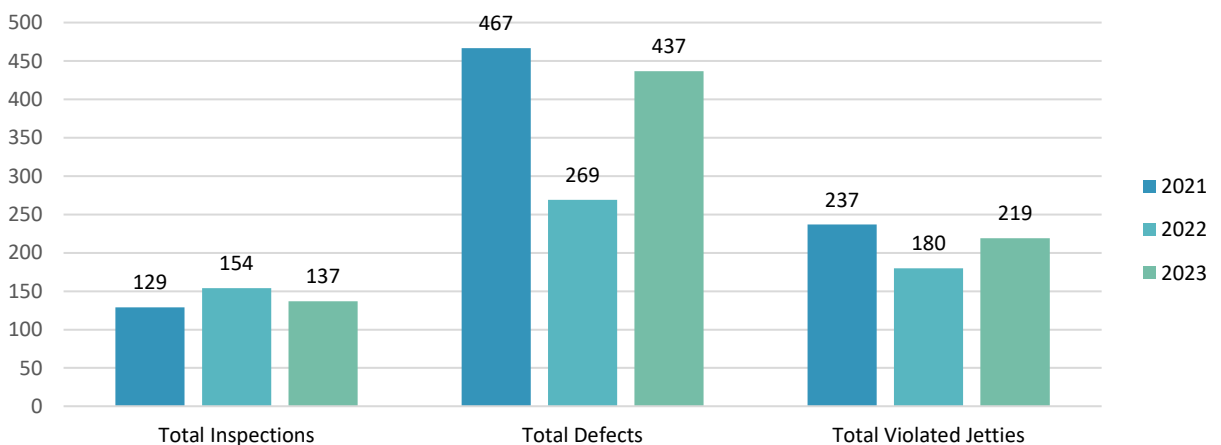
Private Jetty Inspections Monthly 2021 - 2023



Private Jetty Defects and Violations

The below graph illustrates the defects and violations identified during inspection visits with the most common defect reported by the inspectors was related to the jetty's infrastructure and plant and equipment whereas the least common defect was due to general administrative matters. The main reason for the significant increase in total defects was due to further observations of technical defects that did not adhere to the Civil Defense and the Supreme Council of Environment's requirements. All reported defects were followed up and resolved by the licensees on an average of less than 2 weeks from the date of defect being reported.

Private Jetty Inspections, Defects, Violations



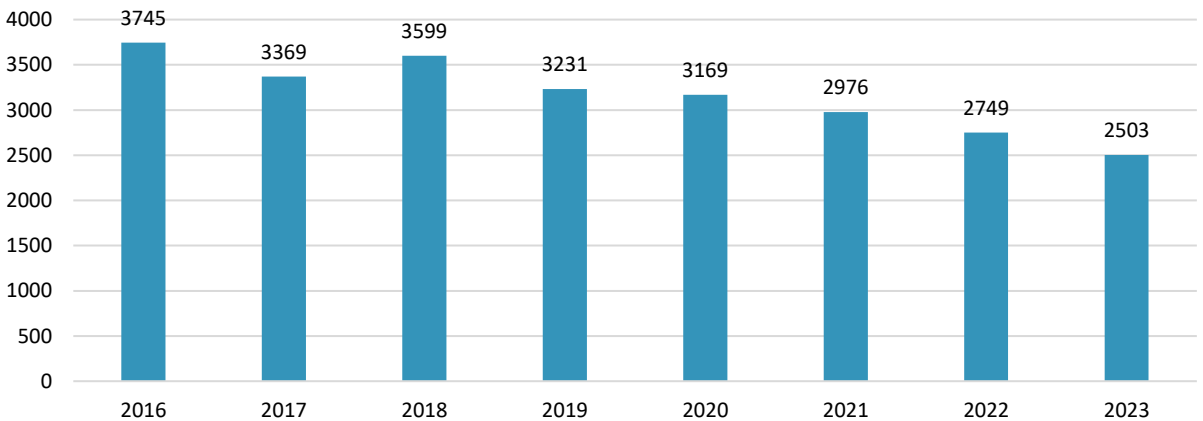
Marine Traffic Control

Vessel Visits

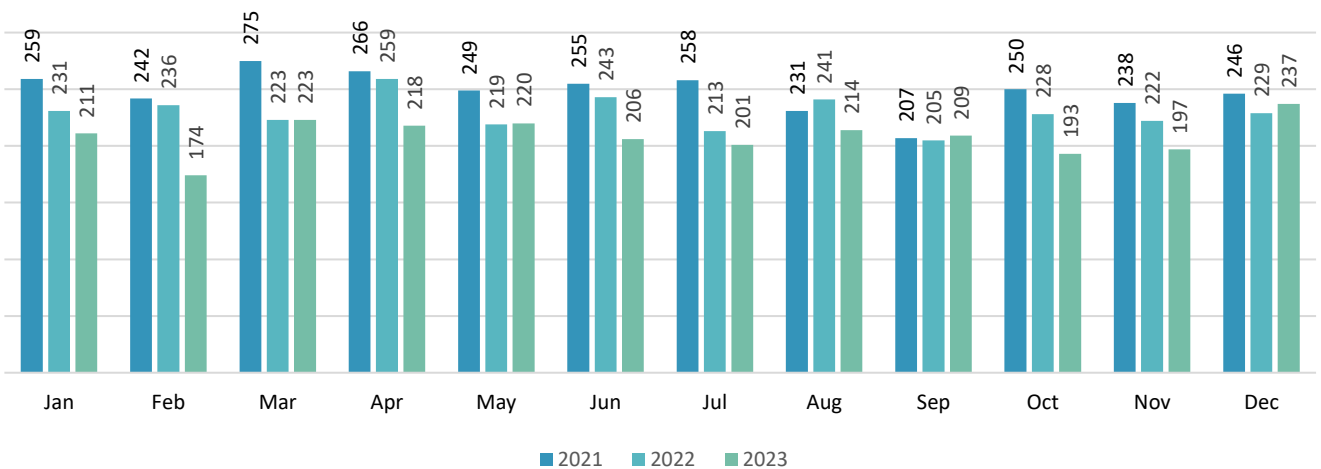
Vessel visits are the number of vessels including tugs and barges that arrive or depart from the Kingdom's ports and private jetties as well as vessels anchored at the anchorage area.

The total vessel visits recorded in 2023 was 2503 visits, which is a 9% decrease compared to 2022. The highest number of visits recorded in a month was in December with a total of 237 visits.

Vessel Visits Annual 2016 - 2023



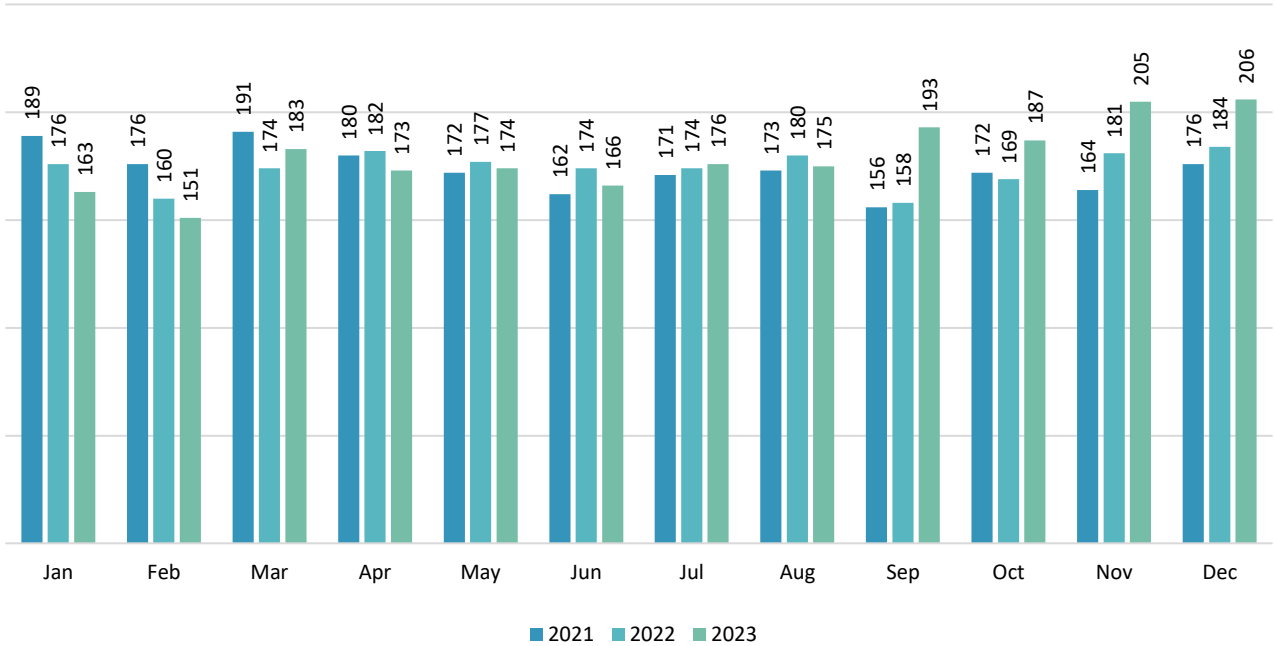
Vessel Visits



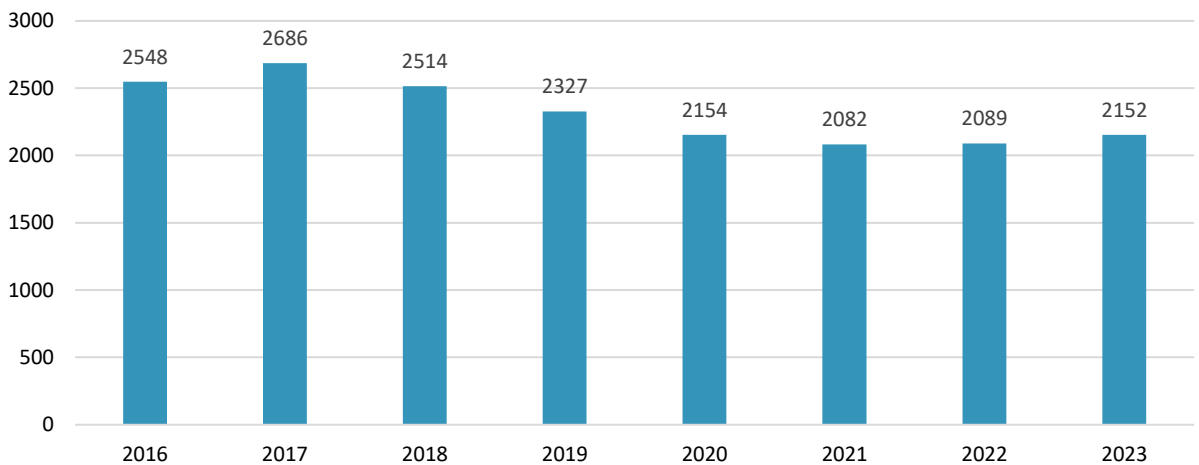
Departure Certificates

Total departure certificates issued for the year 2023 was 2,152 which is a 3% increase vs 2022. The highest number of certificates recorded in a month was in December with a total of 206 certificates.

Departure Certificates



Departure Certificates Annual 2016 - 2023

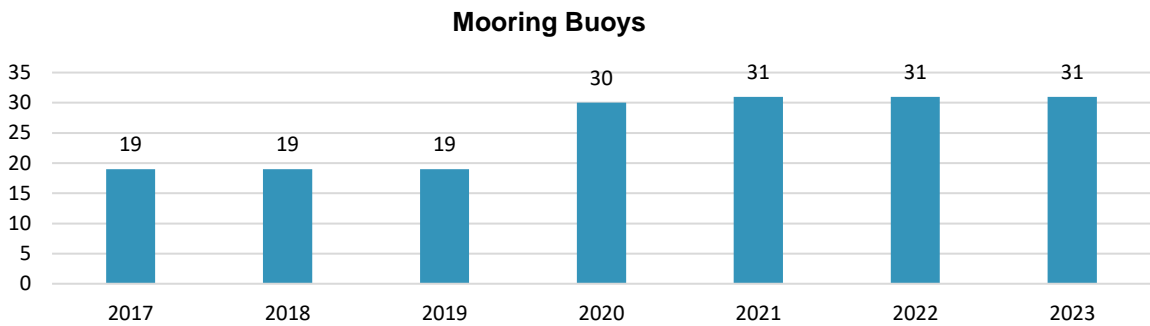


Marine Technical Services

Mooring Buoys

Mooring buoys are objects that float in water, and which may be used as an anchorage for ships offshore and can also serve as locators or warning point for ships.

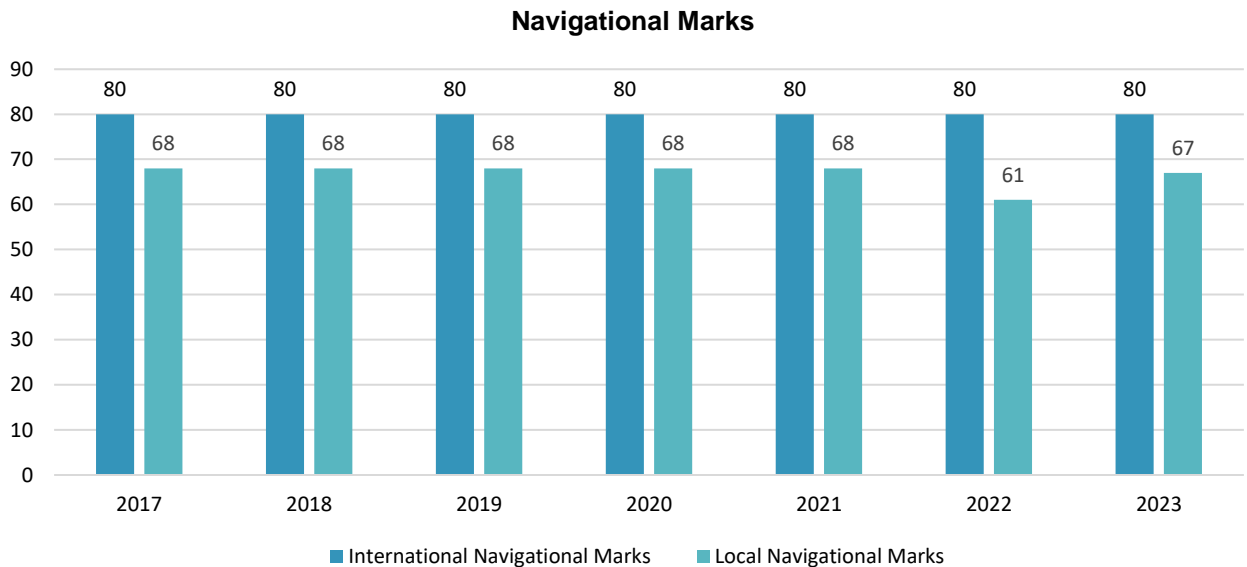
In 2019, a total of 19 mooring buoys were present within the territorial waters of the Kingdom of Bahrain which increased by more than 50% due to regulatory changes which require 2 mooring buoys to be allotted per plot. The Port Operations and Technical Services (POTS) continuously monitor the placement/location of all buoys and ensuring that they are continuously maintained.



Navigation Marks

Similarly, POTS is also responsible for managing Aids to Navigation (AtoN) in coordination with contract suppliers that provide replacement and maintenance services for local and international navigation marks in Bahrain's territorial waters.

The total number of local navigation marks increased by 10% in 2023 whereas international marks remained the same. The increase is due to the addition of 6 additional marks based on stakeholders' requirements.



As part of the AtoNs maintenance contracts with MENAS and Ocean Diving and Marine Services, all local navigation marks and international marks underwent maintenance in 2023.

The maintenance work includes full examination of the buoys, checking for wear and tear, testing ancillary equipment including navigation lights, sensors, and repairing/replacing defected parts or the full structure if required.

Examples of maintenance work done based on POTSD site visits

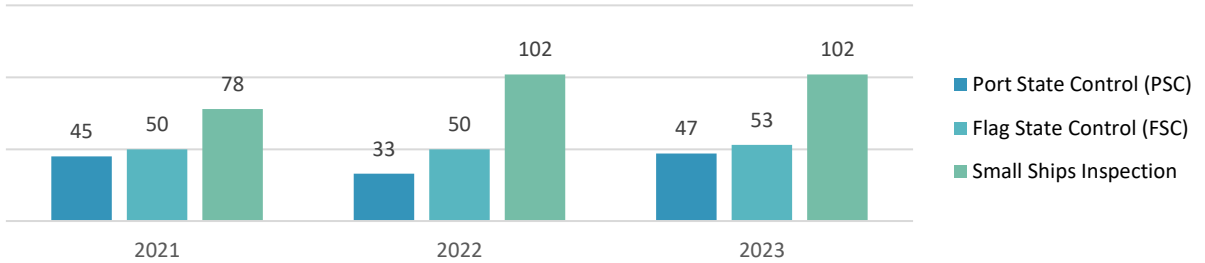


Maritime Safety & Environmental Protection

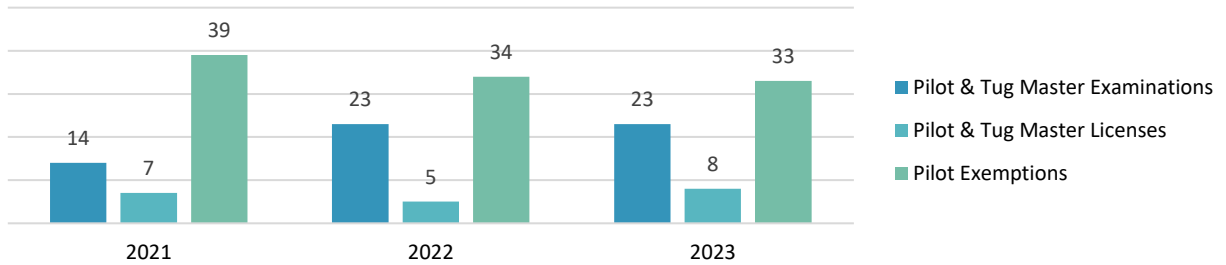
Inspections

The total Port State Control, Flag State Control, and small ship inspections in 2023 totaled to 202 which is a 9% increase from 2022.

Ship & Facility Inspections



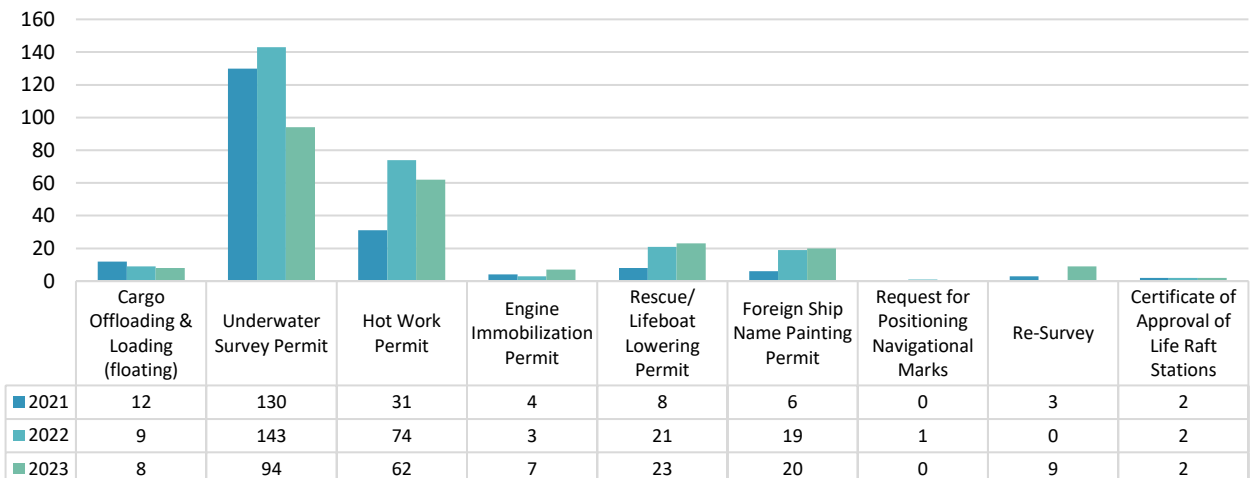
Pilot / Tug Master Licensing & Exemptions



Permits and Approvals

The total number of miscellaneous permits and approvals grant saw a decrease of 17% in 2023 with a total of 225 permits/approvals granted compared to 272 in 2022. The decline was due to lesser interest in underwater survey projects activities.

MSEP Miscellaneous Permits & Approvals

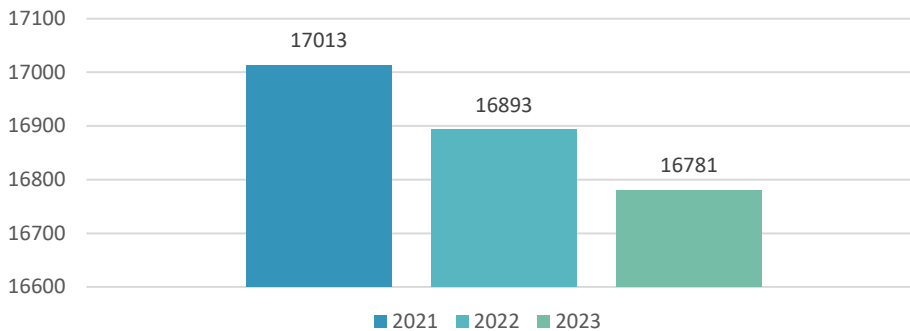


Ship Registry & Seamen Affairs

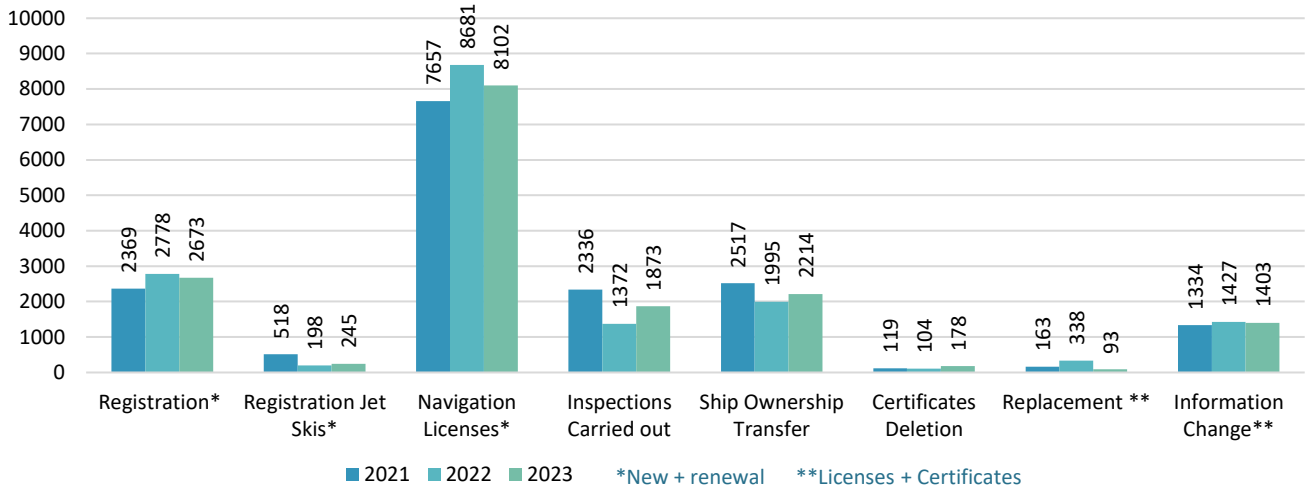
Small Ship Transactions

The Directorate of Ship Registration and Seamen Affairs is responsible for all certificates issued for ships and boats in the Kingdom of Bahrain including new registrations and renewal, issuance and renewals of navigation license, inspection services, deletions, and transferring ownership as well as other services. A total of 16,781 transactions were carried out in 2023 which is a very minute decrease (1%) compared to 2022.

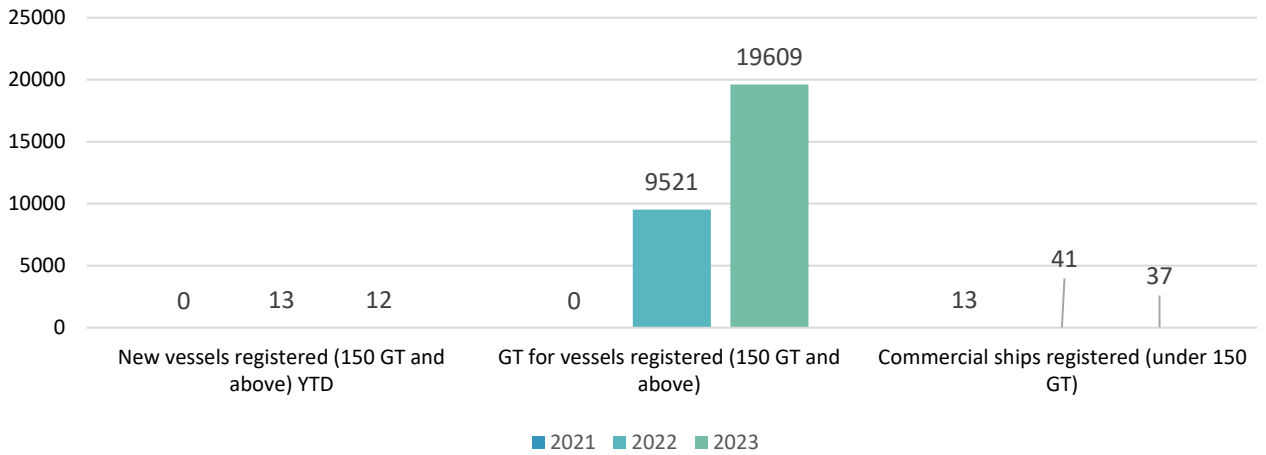
Total Number of Small Ship Transactions 2021-2023



Small Ship Registration Office Transactions (>150 GT)



Ships Registered under Bahrain Flag

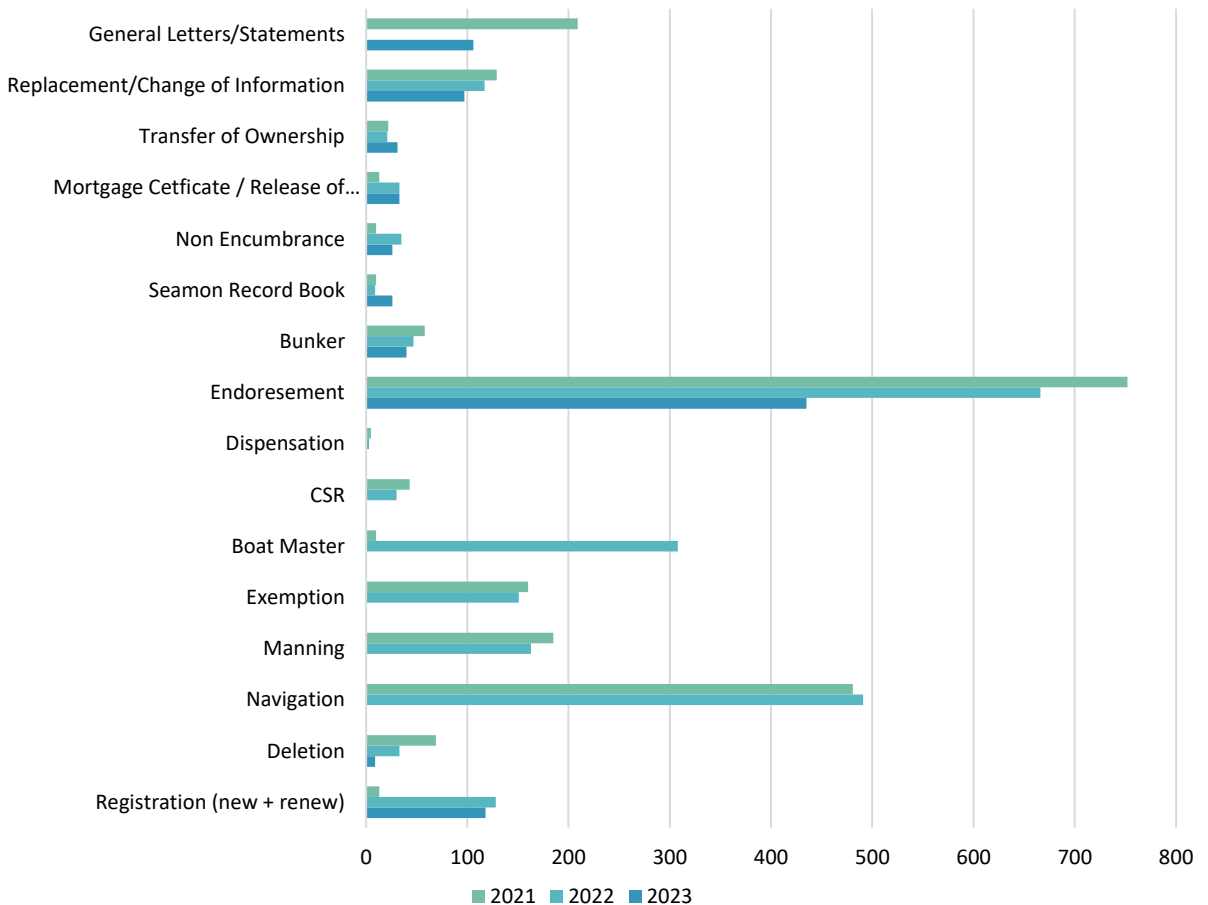


Issued Certificates

A total of 1977 certificates were issued in 2023 which is a 12% decrease from 2022. The high number of deletions in 2021 and 2021 were a result of high numbers of Saudi ship owners reflagging their ships under the KSA flag as per a new law that gave priority to KSA ships in local projects.

There were zero Safe manning documents renewals in 2023, this is due to a decrease in the number of ships registered under Bahrani flag - especially ones doing international voyages – and an increase in number of deleted ships the previous year.

Ship Registry Certificates



Security & Safety

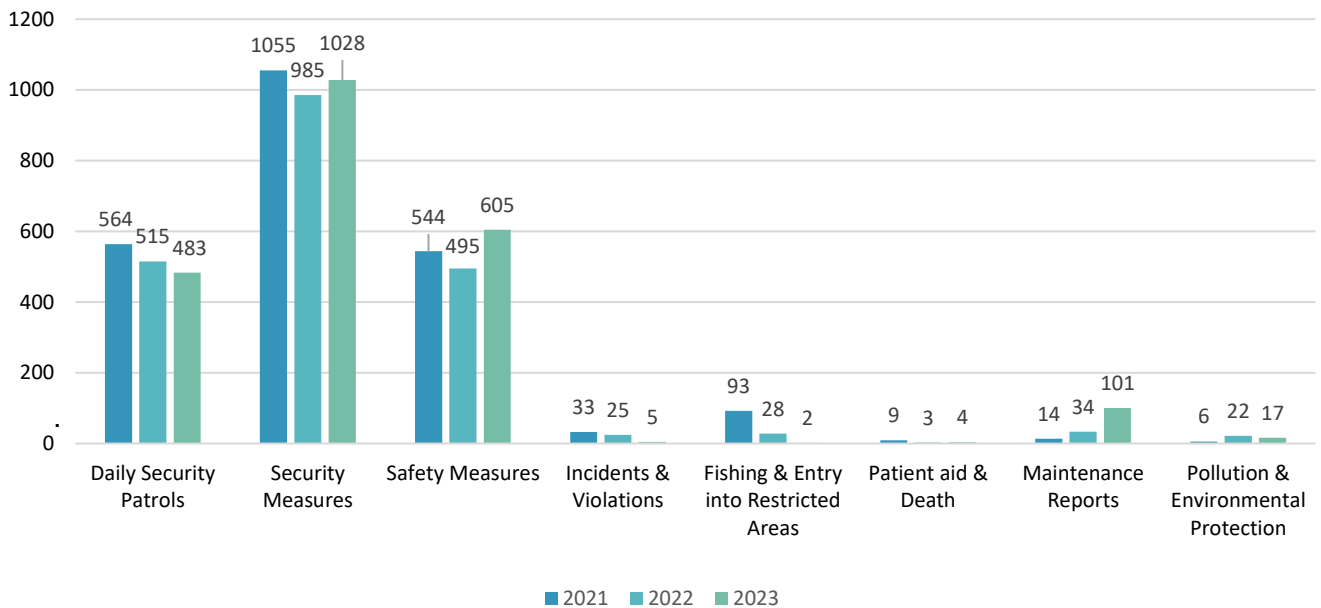
Security and Safety Measures

The Security and Safety Directorate implemented security and safety monitoring management system through physical inspection patrolling and continuous daily monitoring and follow-ups with Port Operators and Private Jetties Owners whilst strengthening daily cooperation with law enforcement stakeholders and HSE Regulatory bodies.

The number of security and safety including environmental incidents and violation in the Ports and Private Jetties between 2021-2023 showed a considerable drop while SSD remains engaged in continuous improvement and widening the scope of HSSE Management System in the Port Industry in year 2023.

Security and Safety Inspection Patrolling between 2021-2023 remained steady with security and safety inspections being conducted in ports and private jetties. Moreover, the performance of the port operating companies, sub-contractors, labors, visitors to ports and private jetties, was continuously monitored whilst maintaining communication devices that are connected 24/7 with the related government agencies to ports and private jetties, in the event of any emergency

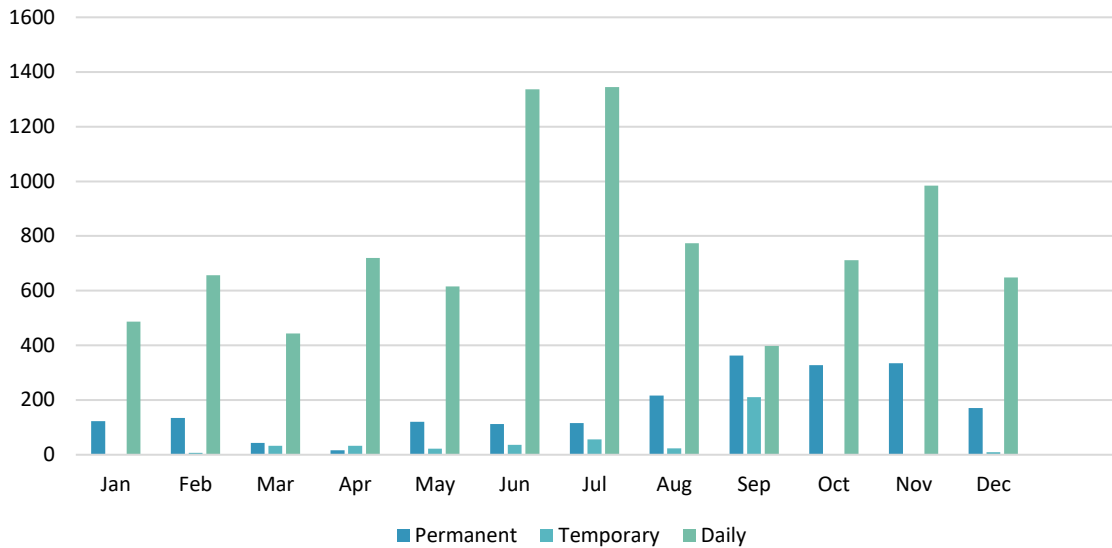
Security & Safety Measures



BLZ Gate Passes

The Security and Safety Directorate issues three different types of gate passes to access the Bahrain Logistics Zone; a permanent pass which is valid for one year and is issued for tenants, a temporary pass which is valid for up to 6 months, and a daily pass which is for one day entry. A total of 11620 passes were issued in 2023 with daily passes being the most requested pass type.

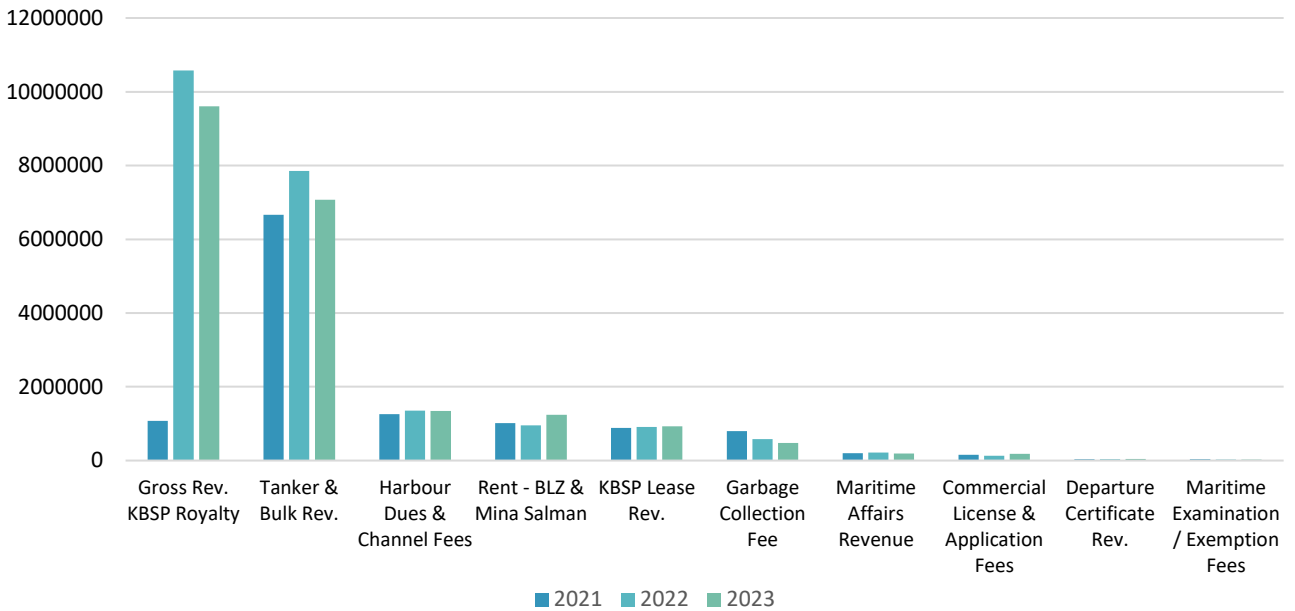
BLZ Entry Passes 2023



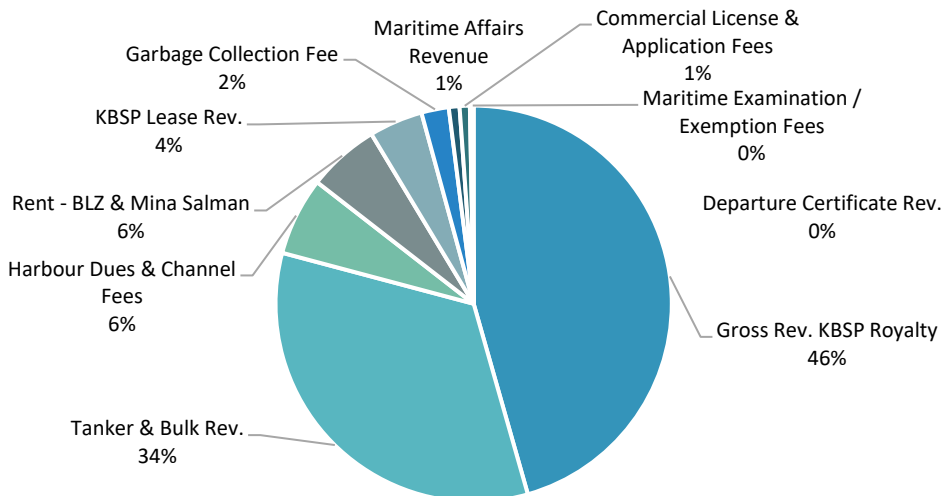
Ports & Maritime Affairs' Revenue

The Ports and Maritime Affairs' total revenue for the year 2023 was BHD 21,072,855 - a 7% decrease in comparison to 2022. However, PMA's overall revenue throughout the past 3 years continues to contribute to over 50% of the Ministry's revenue pool. PMA's revenue is split between 10 main services with the main revenue sources being Khalifa Bin Salman Port Royalties and Tanker/Bulk handling charges – both of which account for approximately 80% of the revenue generated with the remaining 20% split between the respective 8 service areas within the sector. KBSP contributed 46% of the total revenue generated by the PMA whereas other activities accounted for the remaining 54% of revenue.

Ports & Maritime Affairs' Revenue by Service



PMA Revenue Split by Services





وزارة المواصلات والاتصالات
Ministry of Transportation
and Telecommunications

Ministry of Transportation and Telecommunications
P.O. Box10325
Kingdom of Bahrain
www.mtt.gov.bh