

POST PANDEMIC PORTS

SAFER, GREENER, SMARTER, BETTER

PORT KLANG – TOWARDS BUILDING A RESILIENT PORT

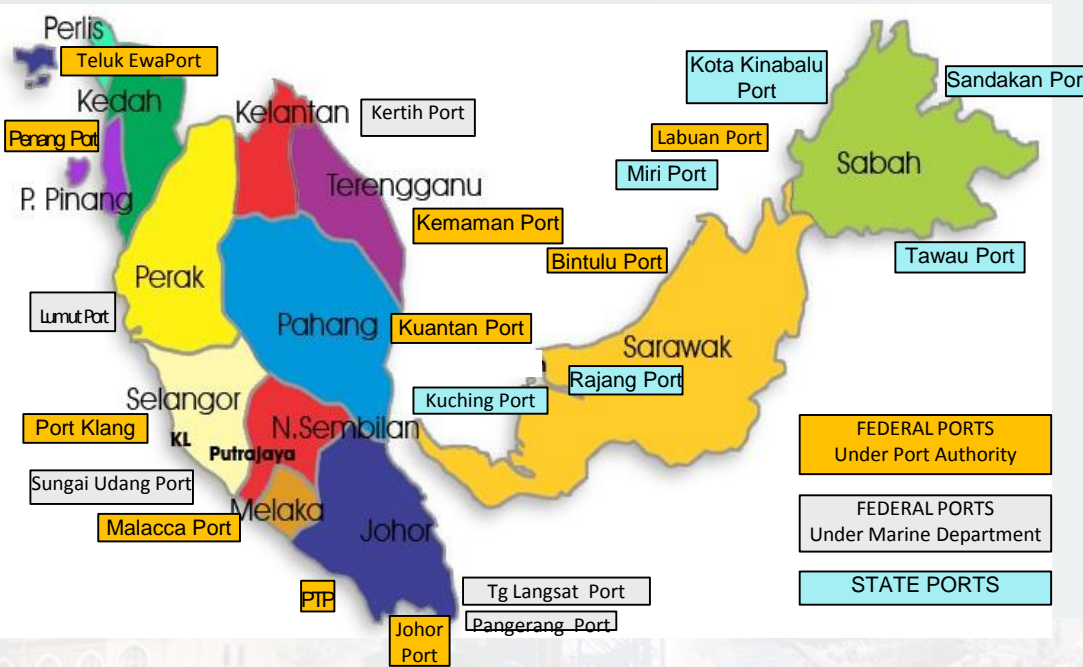
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MALAYSIA PORTS

Introduction



Development & Administration of Ports

- **Federal Ports**
 - under the jurisdiction of MOT

Administered by PORT AUTHORITY	Administered by MARINE DEPT.
<ul style="list-style-type: none">• 10 PORTS• Port Authorities Act 1963• Penang Port Commission Act 1955• Bintulu Port Authority Act 1981	<ul style="list-style-type: none">• 5 Ports• Merchant Shipping Ordinance 1952

- **State Ports**
 - under the jurisdiction of the state Governments in Sabah and Sarawak (7 ports)
- The major federal port management & operations privatized since late 1980s




MALAYSIA PORTS

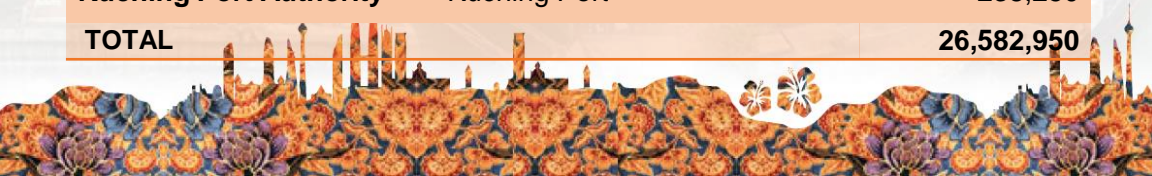
Container Throughput of Federal/State Port 2020



PORT AUTHORITY	PORTS	TEUS
Port Klang Authority	Port Klang	13,244,423
Johor Port Authority	Johor Port Port of Tanjung Pelepas	1,005,123 9,846,106
Penang Port Commission	Penang Port	1,387,987
Kuantan Port Authority	Kuantan Port	149,882
Bintulu Port Authority	Bintulu Port	339,621
Malacca Port Authority	Tanjung Bruas Port	14,142
Kemaman Port Authority	Kemaman Port	0
Sabah Ports Authority	Sapangar Bay Container Port	254,630
	Kota Kinabalu	0
	Sandakan	39,092
	Tawau	63,694
	Lahad Datu	0
Kuching Port Authority	Kuching Port	238,250
TOTAL		26,582,950

TEUs Handling by Country (2019)

	Country	TEUs
1.	China	242.0 m
2.	United States	55.5 m
3.	Singapore	38.0 m
4.	South Korea	29.0 m
5.	Malaysia 	26.4 m



PORT KLANG

Layout & Performance



PORT KLANG's STRUCTURE

Port Authority: Port Klang Authority

Terminal Operators: Northport, Westports, PKFZ

Post-Privatisation Roles & Functions of PKA:

- Trade Facilitation
- Port Planning and Development
- Regulatory oversight of privatized facilities and services
- Competent Authority for pilotage, Dangerous Goods, Navigational Safety, Port Security & Fire Services
- Free Zone Authority
- Asset Management

PORT KLANG PERFORMANCE

TEUS	2019	2020	2021 (Jan - June)
Export	2,485,728	2,564,794	1,386,313
Import	2,548,714	2,556,427	1,399,128
Transshipment	8,546,397	8,123,202	4,218,790
Total	13,580,839	13,244,423	7,004,231

FWT	2019	2020	2021 (Jan - June)
Total	243,198,043	221,421,300	120,963,919

SHIP CALL	2019	2020	2021 (Jan - June)
Total	14,234	13,294	6,028

COVID-19 OUTBREAK

Challenges & Issues



SHIPPING & SUPPLY CHAIN DISRUPTIONS



- Stringent quarantine and health controls
- Fluctuating & Mismatch in supply & demand
- Shortage of containers
- Increase in cargo stockpile
- Surge in port volumes
- Congestion/closure of destination ports
- Port efficiency & productivity affected

CREW CHANGE FOR SHIPS



- Disruption to normal crew change operations
- No crew change – infringement of seafarers' right
- Ship-owners and managers forced to extend contracts of crew already aboard leading to low morale & discipline issues

IMPACT ON PORT WORKERS



- Health risk
- Shortage of workers
- More investment into automation

DIGITALISATION & CYBERSECURITY



- Digital technology - essential for building resilience & sustainability
- Most port terminals operations fully digitalised however supply chain still lacks of digital connectivity
- Issues : multiple systems, lack of integration, need for single platform
- new risks and threats, such as cyber- attack & data breach

POST COVID-19

New Norm in Port and Logistics Operations



□ SOP in Place to ensure continuity of port operations

- Manpower optimization, WFH, Virtual Meeting
- Temperature screening, Wearing face mask at public areas, personal hygiene & workplace sanitization
- Assembly & group meetings are restricted
- Covid-19 testing & full PPE for shore personnel on board vessels
- SOP for crew changes: Port Health, Marine Department and Immigration Departments enable safe and efficient changing of ships' crews

□ Accelerated use of Digital Systems for service request, ship clearance, cargo clearance & routine communications among port users, terminal operators and clearing agencies

□ 95% of terminal workers vaccinated in July 2021

□ 80% of all support workers will be vaccinated by Oct 2021 (ancillary services, hauliers, drivers etc)



FUTURE REDEFINED

Safer, Greener, Smarter, Better



SUSTAINABLE DEVELOPMENT IN PORT KLANG



SHIPPING STRATEGY

- CONTINUOUS CAPACITY BUILDING
- HINTERLAND INFRASTRUCTURE DEVELOPMENT
- CHANNEL & WHARF DREDGING
- SAFE & SECURE WATERWAY – VTMS



DIGITIZATION

- PORTS & LOGISTICS COMMUNITY SYSTEM ACROSS SUPPLY CHAIN
- E-COMMERCE
- DIGITAL FREE TRADE ZONE (DFTZ)
- BIG DATA ANALYSIS FOR FORECASTING & FUTURE PLANNING
- EFFICIENT HAULIER MOVEMENTS –
 - CARGOMOVE,
 - LINKHAUL



GREEN ENVIRONMENT

- EMISSION & GHG REDUCTION
- ALTERNATE FUEL. eg: LNG FOR TERMINAL TRUCKS
- E-EQUIPMENT – RTG, QUAY CRANE
- LED LIGHTING / SOLAR POWER / ENERGY EFFICIENT COOLING SYSTEM
- ONSHORE POWER SUPPLY FOR SHIPS AT NEW BERTHS
- WATER RESOURCE MANAGEMENT
- 3R (REDUCE, REUSE, RECYCLE)



AUTOMATION (FOR FUTURE TERMINAL)

- PORT OPERATIONS – AGV, UNMANNED TRUCKS
- SMART SENSORS TO DETECT SHIPPING ANOMALIES
- RISK MITIGATION – SCANNERS, CCTV



TRANSFORMATION OF WORKFORCE

- CENTER OF EXCELLENCE
- IN-HOUSE TRAINING & CERTIFICATION
- UPGRADE SKILL & MULTITASKING
- COLLABORATIONS WITH HIGHER LEARNING INSTITUTIONS

CONTINUOUS CAPACITY BUILDING



• Northport re-engineering plan

- ✓ NDSB2 Integrated Logistics Hub
- ✓ Regional Distribution Centre
- ✓ Total net-lettable area: 350k sqft
- ✓ Development of new container yard to increase capacity by 560,000 TEUs



• LPG Storage & Distribution Hub

- ✓ Dedicated berth to cater both LPG & LNG ship

• Westports Expansion

- ✓ To add 4.8km berth
- ✓ Additional handling capacity 13.5m TEUs
- ✓ Undertaken in 2 phases over a period of 20 years



• 3RD Terminal

- ✓ Feasibility study completed
- ✓ Natural deep water of 20-metre
- ✓ Basin design for land optimization & Logistics Distribution Centre
- ✓ Integrated Port City Development



CONCLUSION

- 01** Port Industry in Malaysia poised to transform into Regional Maritime Centres
- 02** Covid-19 exposed vulnerability of ports
- 03** Strategies to face future challenges & disruption using digital technology in every aspect of the industry
- 04** Commitment to reduce emission & GHG to protect the environment towards developing a sustainable industry for the future
- 05** Continuous development of infrastructure and services towards meeting future needs



Thank You



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<http://www.pka.gov.my>

