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Container Port Performance Index

Sub-Saharan Africa 2024

Executive summary

Container ports in Sub-Saharan Africa generally underperform relative to global benchmarks, though select ports show measurable improvements. Performance varies widely across West, East, and Southern Africa, reflecting differences in governance, infrastructure, and operational practices.

Targeted investments, process optimization, digital adoption, and effective management have enabled some ports to improve efficiency, while structural and competitive pressures continue to constrain others. Operational efficiency, call management, and strategic use of digital tools emerge as key drivers of performance. The CPPI highlights that consistent operational management, and strategic interventions can support gradual progress, enhancing trade facilitation and regional integration even under challenging conditions.

Global Context & Trends

The Container Port Performance Index 2020 to 2024 provides context towards the methodology and overall trend of Port Performance since the turn of the decade.

2020-2024

To put trends in Sub-Saharan African port performance into perspective, it is important to consider several global maritime transport and supply chain indicators over the 2020 to 2024 period.

The World Bank's Global Supply Chain Stress Index (GSCSI)[1] tracks TEUs of containers delayed or stalled, highlighting systemic inefficiencies. Stress peaked in late 2021 and early 2022 during pandemic-related disruptions, declined in 2023, and rose again by the end of 2024. Similarly, Clarksons' Port Congestion Index (PCI)[2] measures fleet capacity held up in ports and reflects pandemic-induced congestion and partial recovery before 2024. The Global Supply Chain Pressure Index (GSCPI), developed by the Federal Reserve Bank of New York, aggregates shipping costs, delivery times, backlogs, and inventory data, showing acute stress in 2020 and 2021, easing in 2022 and 2023, and moderate rebound in 2024 due to geopolitical and localized disruptions.

Average container ship time in port mirrors these trends. Developed country ports experienced sharp increases during the pandemic but recovered more rapidly, while developing countries faced prolonged constraints due to limited automation, slower vaccination rollouts, and financial limitations. The Shanghai Containerized Freight Index (SCFI), tracking spot rates from Shanghai to major trade routes, rose sharply from mid-2020 to late 2021, then declined in 2022 and stabilized near pre-pandemic levels by 2023 to 2024.

Global CPPI trends reflect these dynamics. Strong baseline performance in 2020 gave way to pandemic-driven declines in 2021, with CPPI bottoming out in 2022. Operational improvements and easing congestion in 2023 drove a strong recovery, while 2024 saw moderate setbacks due to geopolitical and climatic events, highlighting the persistent sensitivity of container ports to external shocks.

Port Performance

Port performance is shaped by factors both within and beyond the control of port authorities and terminal operators. External factors, such as geography, hinterland trade demand, vessel schedules, energy costs, and global trade dynamics, create contextual constraints that terminals cannot directly manage.

[1] the magnitude of container shipping disruptions affecting global supply chains.
[2] the level of fleet capacity globally in port or an associated anchorage each day

Operational and policy decisions, however, can influence efficiency. Private sector participation, infrastructure investment, and competition policies are associated with lower maritime transport costs. Governance, private involvement, and fostering competition are highlighted as key elements for improving port performance. The CPPI report emphasizes that targeted operational improvements, digitalization, process optimization, and effective labour management can reduce berth times, increase reliability, and enhance competitiveness even under challenging external conditions.

Operational Variables and Port Efficiency

Port performance depends on operational factors including call sizes, total moves per year, and time spent in port. Economies of scale, vessel turnaround times, and arrival patterns explain much of the variation in CPPI scores across ports, while external disruptions such as geopolitical events or shifts in trade routes also affect performance.

- Ports with more moves per call typically handle larger ships and can assign more cranes, achieving higher moves per berth hour
- Total moves per year and port calls are correlated but not perfectly, which explains variations in CPPI
- Smaller ports can achieve fast berth times through efficient handling
- The CPPI measures total time in port, including waiting at anchor or other berths. Ports that minimize waiting prior to berthing typically score higher. Top performers often spend 70 to 90% of their time at berth

Operational efficiency, call management, and berth utilization are essential CPPI drivers. External factors also affect performance, but effective handling and minimizing waiting times enable ports to achieve moderate to high efficiency even under challenging conditions

Sub-Saharan Africa Analysis

The 2024 Container Port Performance Index highlights persistent structural challenges across Sub-Saharan African ports alongside early signs of reform-driven improvement. Across the continent, many ports face chronic congestion, limited automation, and insufficient capacity relative to trade volumes. The table below ranks SSA ports by their 2024 CPPI values and compares them to 2023 scores. The regional average CPPI is **–81**, providing a benchmark for assessing performance.

	PORT	TERRITORY	Global Rank 2024	CPPI 2024	CPPI 2023	Income Group
1	**Dakar**	Senegal	**108**	▲ **23**	-82	LMI
2	**Mogadiscio**	Somalia	**163**	▲ **8**	9	LI
3	**Toamasina**	Madagascar	**177**	▲ **6**	-12	LI
4	**Freetown**	Sierra Leone	**216**	▲ **2**	0	LI
5	**Conakry**	Guinea	**235**	▼ **-2**	4	LMI
6	**Berbera**	Somalia	**243**	▼ **-3**	31	LI
7	**Bata**	Equatorial Guinea	**260**	► **-6**	-6	UMI
8	**Namibe**	Angola	**277**	▲ **-11**	-16	LMI
9	**Malabo**	Equatorial Guinea	**285**	▼ **-12**	1	UMI
10	**Beira**	Mozambique	**292**	▲ **-13**	-38	LI
11	**Cotonou**	Benin	**303**	▲ **-17**	-243	LMI
12	**Port Victoria**	Seychelles	**304**	▼ **-17**	-15	HI
13	**Lekki**	Nigeria	**306**	**-17**	*No Data*	LMI
14	**Nouakchott**	Mauritania	**314**	▲ **-21**	-53	LMI
15	**Tin Can Island**	Nigeria	**316**	▲ **-21**	-60	LMI
16	**Lome**	Togo	**320**	▼ **-23**	-22	LI
17	**Lagos**	Nigeria	**322**	▼ **-24**	-16	LMI
18	**Onne**	Nigeria	**327**	▼ **-25**	-16	LMI
19	**Owendo**	Gabon	**331**	▲ **-30**	-50	UMI
20	**Monrovia**	Liberia	**343**	▲ **-37**	-40	LI
21	**Mayotte**	Comoros	**345**	▼ **-39**	-16	LMI
22	**Maputo**	Mozambique	**347**	▼ **-40**	-27	LI
23	**San Pedro**	Côte d'Ivoire	**351**	▼ **-43**	-26	LMI

	PORT	TERRITORY	Global Rank 2024	CPPI 2024	CPPI 2023	Income Group
24	**Abidjan**	Côte d'Ivoire	**358**	▼ **-51**	-38	LMI
25	**Dar Es Salaam**	Tanzania	**360**	▲ **-53**	-80	LMI
26	**Matadi**	DRC	**367**	▲ **-61**	-105	LI
27	**Nacala**	Mozambique	**368**	▲ **-64**	-68	LI
28	**Port Louis**	Mauritius	**369**	▼ **-70**	-59	UMI
29	**Mombasa**	Kenya	**375**	▼ **-89**	-32	LMI
30	**Walvis Bay**	**Namibia**	**376**	▼ **-91**	**-86**	UMI
31	**Douala**	Cameroon	**381**	▼ **-97**	-80	LMI
32	**Luanda**	Angola	**384**	▼ **-119**	-123	LMI
33	**Tema**	Ghana	**393**	▼ **-166**	-69	LMI
34	**Port Elizabeth**	South Africa	**395**	▼ **-169**	-128	UMI
35	**Kribi Deep Sea Port**	Cameroon	**397**	▼ **-199**	-62	LMI
36	**Cape Town**	South Africa	**400**	▲ **-281**	-519	UMI
37	**Pointe-Noire**	Congo	**401**	▼ **-283**	-145	LMI
38	**Coega (Ngqura) Port**	South Africa	**402**	▲ **-284**	-444	UMI
39	**Durban**	South Africa	**403**	▼ **-721**	-206	UMI

Legend

▲ indicates improvement, ▼ decline, and ► no change from previous year.

- Low Income: LI
- Lower Middle Income: LMI
- Upper Middle Income: UMI
- High Income: HI

Source: The World Bank's The Container Port Performance Index 2020 to 2024

Walvis Bay, Namibia

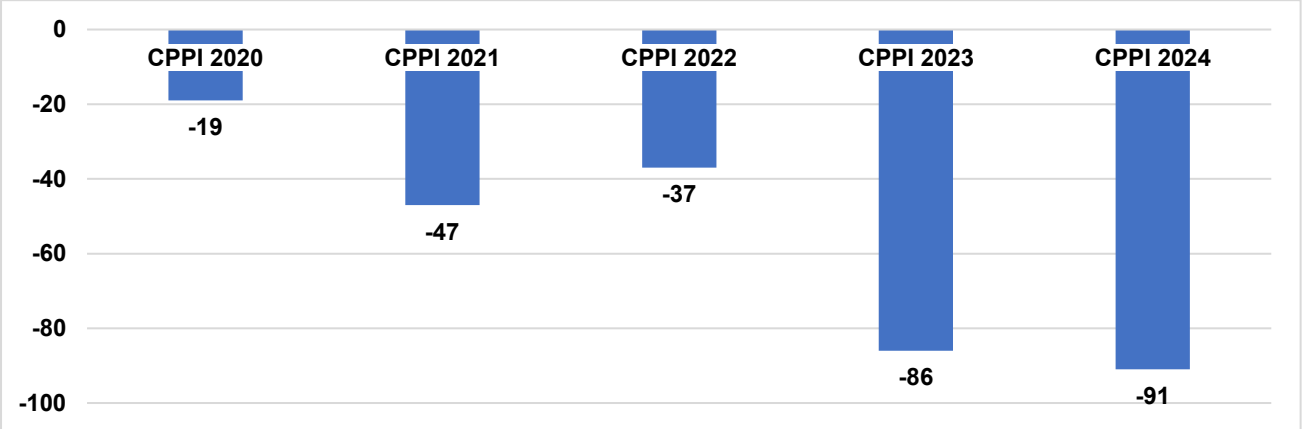
Walvis Bay is listed under West Africa in the dataset, although geographically and operationally it aligns with Southern Africa. Its 2024 CPPI score of **-91** places it ***below the West African regional average of -55.5 but above the Southern African regional average of -195.7***, positioning the port between the two subregional benchmarks.

Income group context:

- Walvis Bay is an upper middle-income port with an income group average CPPI of **-3.4**. Its score of **-91** is below the income group average, reflecting regional competitive pressures rather than operational inefficiencies.
- Compared with lower middle-income ports in Southern Africa, such as Maputo **(-40)** and Nacala **(-64)**, Walvis Bay's score is lower than some but higher than the regional average for the Southern Africa LMI ports, indicating its performance is moderate relative to peers with lower resource endowments.

CPPI trend analysis:

Figure 1: Walvis Bay Port CPPI 2020-2024



Source: The World Bank's The Container Port Performance Index 2020 to 2024

CPPI at Walvis Bay has fluctuated over recent years, showing a downward trend from 2020 to 2024. These changes reflect shifts in regional trade patterns, market conditions, and systemic factors affecting port performance, rather than any reduction in the port's physical infrastructure or operational capacity. The trend suggests that while the port continues to operate with its available berthing and handling resources, external influences such as congestion, shipping volumes, and procedural adjustments drive the observed variations in CPPI. Ports in regions with more exports than imports generally achieve higher CPPI scores, as preparing containers for export allows terminals to organize cargo efficiently. Importing ports and transshipment hubs face additional challenges, including finding yard space for incoming containers and coordinating complex vessel arrivals. Namibia, which experiences large trade deficits, is affected by these dynamics, contributing to Walvis Bay's relatively lower CPPI.

Operational context:

- Berth utilization in 2024 was 57% of port hours.[3]
- Statistical index[4]: -58; Administrative index: -125.[5]

Comparative perspective:

- Compared with South African ports such as:
    - Durban (berth utilization 52%, statistical index **-454**, administrative index **-989**) and
    - Coega (Ngqura) (berth utilization 87%, statistical index **-171**, administrative index **-396**),
    - Walvis Bay maintains moderate utilization and relatively lower statistical and administrative deviations, indicating steady operational throughput given its capacity.
- Against Angolan ports, including:
    - Luanda (berth utilization 61%, statistical index **-70**, administrative index **-168**) and
    - Namibe (berth utilization 96%, statistical index **-7**, administrative index **-15**),
    - Walvis Bay shows moderate utilization and slightly higher statistical and administrative deviations, reflecting a smaller but steady share of regional port activity.
- Compared with lower middle-income Southern African ports, Walvis Bay demonstrates stronger capacity relative to its peers in LMI countries, even as its CPPI is below UMI group average.

Overall, Walvis Bay illustrates how an upper middle-income port can operate effectively within the Southern African maritime context, navigating structural and competitive pressures while supporting regional trade flows and maintaining operational consistency.

West Africa: Signs of Momentum

West African ports in 2024 show a wide range of performance, with CPPI scores ranging from **23** at Dakar (Senegal) to **-283** at Pointe-Noire (Congo). ***The West African regional average CPPI is -55.5***, indicating that while a few ports outperform, most remain below global benchmarks.

Dakar demonstrates a remarkable recovery, rising from **-82** in 2023 to **23** in 2024, reflecting effective governance, infrastructure investment, and operational improvements. Freetown (Sierra Leone) and Conakry (Guinea) maintain steady, modest improvements, keeping them above or close to the regional average.

Ports below the regional average include:

- Namibe (Angola),Walvis Bay (Namibia), Malabo (Equatorial Guinea), Bata (Equatorial Guinea), and Owendo (Gabon), which are slightly below average.

[3] How busy a dock is, measured by the time ships are actively being loaded or unloaded compared with the time the dock is available.
[4] This method ensures that the performance scores account for various factors, such as ship size and call size, providing a robust and comparable assessment of port efficiency.
[5] This data includes official records of vessel arrivals, departures, and cargo operations, which are used to calculate performance metrics and ensure consistency across different ports.

- Nigerian ports such as Lagos, Onne, and Tin Can Island, and other previously stronger ports like Abidjan (Côte d'Ivoire), Tema (Ghana), Kribi Deep Sea Port (Cameroon), and Pointe-Noire (Congo), which have declined significantly.

Income group context provides further insight:

- Ports in lower middle-income countries, such as Dakar and Conakry, generally outperform the income group average of **-2.5.**
- Ports in lower-income countries, including Freetown, Lomé, and Monrovia, remain below their group average of **-20.5.**
- Upper middle-income ports, such as Bata and Malabo, slightly underperform relative to their income group average of **-3.4**, indicating potential for operational improvements.

Operational trends support these outcomes:

- Higher-performing ports show better berth utilization, supporting higher throughput.
- Statistical index scores, reflecting data-driven management, tend to be higher at well-performing ports.
- Administrative efficiency also differentiates performance, with streamlined procedures at top ports facilitating faster cargo handling, while ports below the regional average face bottlenecks.

Overall, West Africa exhibits strong polarization. A small group of high-performing ports contrasts sharply with many underperforming facilities. The combination of governance, infrastructure, and operational management drives CPPI performance, with Dakar illustrating how targeted reforms can deliver measurable results even in resource-constrained settings.

East Africa: Gradual Efficiency Gains

East African ports display mixed trends in 2024, with CPPI scores ranging from 8 at Mogadiscio (Somalia) to **-89** at Mombasa (Kenya). ***The East African regional average CPPI is -38.6***, showing that several ports remain below the global benchmark. Mogadiscio demonstrates steady improvement, scoring 8 after rising from 9 in 2023, reflecting targeted investments and better operational management. Berbera (Somalia) shows fluctuations, with a decline to **-3** in 2024 after a high of **31** in 2022, highlighting the sensitivity of performance to operational changes.

Ports below the regional average include:

- Seychelles' Port Victoria, Mayotte (Comoros), Dar Es Salaam (Tanzania), Port Louis (Mauritius), and Mombasa (Kenya), with the latter two showing particularly low CPPI scores.

Income group context provides further insight:

- Ports in lower-income countries, including Mogadiscio, Berbera, and Dar Es Salaam, mostly underperform relative to their income group average of **-20.5**, highlighting structural and operational challenges.
- Lower middle-income ports, such as Mayotte and Dar Es Salaam, also underperform relative to their income group average of **-2.5.**
- High-income Port Victoria performs below the regional average despite its income group advantages, suggesting local operational constraints.
- Upper middle-income Port Louis also underperforms relative to its income group average of **-3.4.**

Operational trends reinforce these outcomes:

- Higher-performing ports like Mogadiscio and Berbera have strong berth utilization and relatively better statistical and administrative indices, supporting consistent throughput.
- Ports below the regional average, such as Mombasa and Dar Es Salaam, show lower statistical and administrative scores, indicating challenges in operational management and coordination.

Overall, East Africa demonstrates a clear divergence. A small set of ports achieves efficiency gains, while most remain constrained by operational inefficiencies and structural limitations. CPPI performance correlates closely with governance,

infrastructure investment, and management practices, with Mogadiscio illustrating the potential for steady improvement even in lower-income settings.

Southern Africa: Persistent Weakness

Southern African ports display a wide range of trends in 2024, with CPPI scores from **6** at Toamasina (Madagascar) to **-721** at Durban (South Africa). ***The Southern African regional average CPPI is -195.7***, showing that most ports remain far below the global benchmark. Toamasina demonstrates recovery, scoring **6** after **-12** in 2023, reflecting targeted investments and improved operational management. Beira (Mozambique) also shows some improvement, reaching **-13** in 2024.

Ports below the regional average include:

- Maputo and Nacala in Mozambique, Port Elizabeth, Cape Town, Coega (Ngqura) Port, and Durban in South Africa, with South African ports particularly low in the rankings.

Income group context provides further insight:

- Ports in lower-income countries, such as Toamasina, Beira, Maputo, and Nacala, mostly perform below their income group average of **-20.5**, highlighting structural and operational constraints.
- Upper middle-income ports in South Africa, including Port Elizabeth, Cape Town, Coega (Ngqura) Port, and Durban, underperform relative to their income group average of **-3.4**, indicating that income group advantages alone do not guarantee efficiency gains.

Operational trends reinforce these outcomes:

- Toamasina and Beira maintain relatively strong berth utilization and statistical and administrative indices, supporting steady throughput despite their modest CPPI scores.
- Ports below the regional average, particularly in South Africa and Mozambique, exhibit lower statistical and administrative indices, indicating inefficiencies in operational management and coordination that hinder performance.

Overall, Southern Africa shows a stark divergence. A few ports achieve modest efficiency gains, while the majority face persistent operational and structural challenges. CPPI performance closely aligns with governance, management practices, and targeted investment, with Toamasina illustrating the potential for improvement even in lower-income settings.

Sentiment

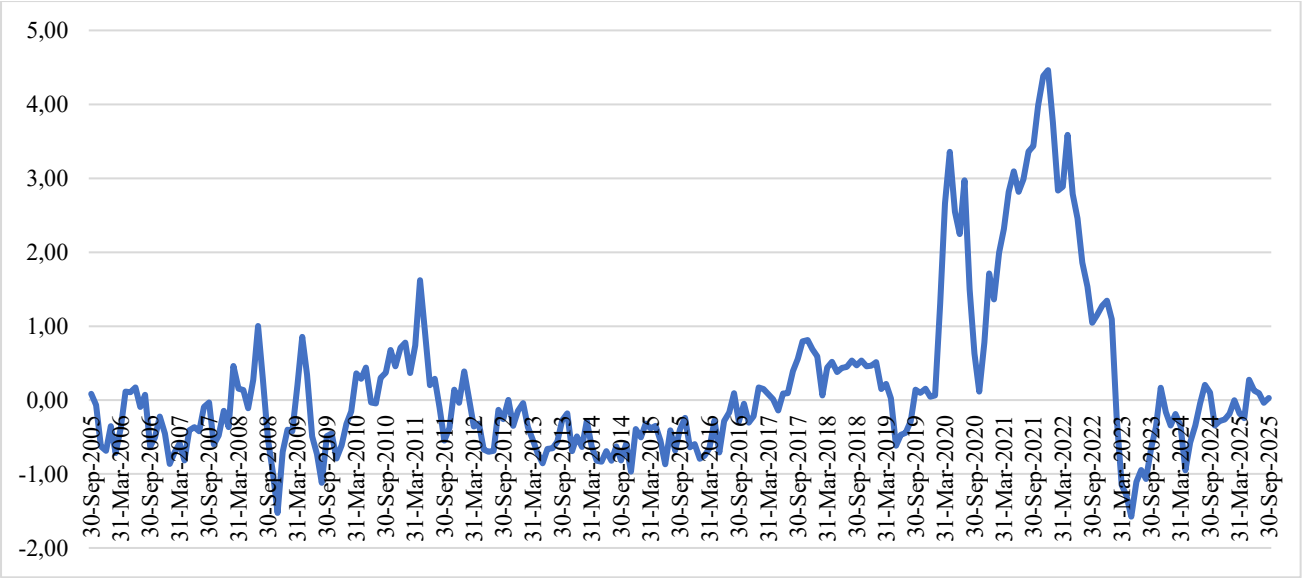
Sub-Saharan African container ports continue to face structural and operational challenges, with most ports performing below global benchmarks. The 2024 CPPI results reveal persistent underperformance but also highlight pockets of progress, where ports achieve measurable gains through investment, governance reforms, and operational enhancements.

Regional performance is highly varied. West Africa shows early signs of momentum driven by a few high-performing ports, East Africa demonstrates gradual efficiency gains in select locations, and Southern Africa exhibits stark divergence between recovering ports and those facing persistent operational challenges. South Africa's Coega (Ngqura) Port demonstrates measurable improvement despite a low absolute CPPI score, reflecting successful operational management and targeted investments. In contrast, Durban highlights a lack of progress, with a significant decline in CPPI despite its income group advantages, illustrating persistent structural and operational constraints. Namibia's Walvis Bay also performs above the Southern African regional average despite scoring below the income group benchmark, showing that consistent operational management can yield moderate success under competitive pressures.

These findings emphasize that economic context alone does not determine port efficiency. Infrastructure capacity, management practices, governance, regulatory frameworks, and adoption of digital tools and automation collectively shape container port performance. The results suggest that targeted reforms, informed policy interventions, and investment in operational and digital capacity are critical to improving efficiency and supporting trade competitiveness across Sub-Saharan Africa.

Additional Graphs & Tables

Figure 2: GSCI Sept 2005- Sep 2025



Source: Federal Reserve Bank of New York

Table 2: Top 10 Global Ports

	Port	Territory	World Bank Income Group	Region's average CPPI	CPPI 2024
1	**Yangshan**	China	UMI	94.8	**146**
2	**Fuzhou**	China	UMI	94.8	**139**
3	**Port Said**	Egypt	LMI	4.1	**137**
4	**Dalian**	China	UMI	80.3	**137**
5	**Tanger-Mediterranean**	Morocco	LMI	4.1	**136**
6	**Mawan**	China	UMI	94.8	**133**
7	**Cai Mep**	Viet Nam	LMI	15.7	**132**
8	**Guangzhou**	China	UMI	80.9	**130**
9	**Chiwan**	China	UMI	80.9	**130**
10	**Ningbo**	China	UMI	94.8	**128**

Source: The World Bank's The Container Port Performance Index 2020 to 2024