

Towards Sustainable Port Development in the Western
Indian Ocean: Implementation of a Toolkit for
Sustainable Port Development in a Blue Economy

Pilot Testing Workshop Report
Port of Ngqura



July 2024



Report prepared by:

Asakhile Maxama, Transnet National Ports Authority
Zukiswa Magidela, Transnet National Ports Authority
Cebile Nzuza, Transnet National Ports Authority
Zimasa Sani, Transnet National Ports Authority

Reviewed Internally by:

Nelson Mbatha, Transnet National Ports Authority

Reviewed Externally by:

Susan Taljaard, Council for Scientific and Industrial Research
Steven Weerts, Council for Scientific and Industrial Research

Report date: 12 July 2024

Report prepared for:

Consideration by Port of Ngqura in strategic and operational planning towards sustainable port development

This report should be referenced as; TNPA (2024) Port of Ngqura Pilot Testing Workshop: Towards Sustainable Port Development in the Western Indian Ocean: Implementation of a Toolkit for Sustainable Port Development in a Blue Economy.

TABLE OF CONTENT

TABLE OF CONTENT	i
1. INTRODUCTION	1
1.1 Background	1
1.2 Overview of Toolkit for Sustainable Port Development.....	3
1.3 Purpose of Pilot Testing	5
1.4 Workshop Agenda and Participants.....	6
2. PORTS SUSTAINABILITY PERFORMANCE	9
2.1 Overview of PSP Index.....	9
3. RECOMMENDED ACTIONS & RESPONSIBILITIES	12
4. CONSIDERATIONS FOR THE WAY FORWARD.....	17
5. KEY REFERENCES	18
APPENDIX A: WORKSHOP AGENDA	20
APPENDIX B: PORT SUSTAINABILITY INDEX: PORT OF NGQURA.....	22

1. INTRODUCTION

1.1 Background

The port industry faces a growing challenge to address societal and environmental considerations while still having to provide adequate capacity and cost-effective services to traders. With increasing societal and regulatory pressures, port authorities around the world are compelled to pursue greater sustainability to safeguard their 'license to operate'. In response to these global challenges the concept of 'Green Ports' emerged, primarily focusing on balancing environmental challenges and economic demand and striving for sustainability through increasing both economic and environmental competitiveness. The concept of 'Sustainable Port Development' builds on that of 'Green Ports' by also considering social sustainability, in essence advocating the need for a port development and operations to create a balance between economic growth, environmental protection, and social progress to secure its long-term future.

The Western Indian Ocean (WIO) region is no exception, as it is experiencing an unprecedented pace of large-scale developments, including ports, principally driven by infrastructure demands and financial inflows from different funding streams. Indeed, economic growth and development are becoming inevitable if countries of the WIO region want to address social challenges such as poverty and inequality. Most of these developments are concentrated in coastal areas, environments that also support rich natural resources. While the region has an opportunity to define sustainable trajectories for infrastructure investments, they also have potential to significantly impact on the integrity of critical habitats and the natural resource base that future well-being and growth may depend on. In the WIO region coastal communities are especially reliant on coastal resources for their lives and livelihoods. Considering the rich diversity of coastal and marine ecosystems in the WIO region, and its potential to also contribute to socio-economic benefits, sustainable Blue Economy growth holds great promise for the area.

According to the World Bank (2017), a sustainable Blue Economy is the 'sustainable use of ocean resources for economic growth, improved livelihoods, and jobs while preserving the health of ocean ecosystem'. It, therefore, strives "to promote economic growth, social inclusion, and the preservation or improvement of livelihoods while at the same time ensuring environmental sustainability of the oceans and coastal areas". Aligned with this as a guiding principle, the Africa Blue Economy Strategy (AU 2019) views the Blue Economy as 'an inclusive and sustainable economy that becomes a significant contributor to continental transformation and growth, through advancing knowledge on marine and aquatic biotechnology, environmental sustainability, the growth of an Africa-wide shipping industry, the development of sea, river and lake transport, the management of fishing activities in these aquatic spaces, and the exploitation and beneficiation of deep sea mineral and other resources'.

Within this context, and complimentary to the Strategic Framework for Coastal and Marine Water Quality Management in the Western Indian Ocean Region (UNEP et al. 2022a), the Nairobi Convention, on request of the Conference of Parties (CoP), commissioned a project to facilitate sustainable port development in the WIO part of the Implementation of the Strategic Action Programme for the protection of the Western Indian Ocean from land-based sources and activities (WIOSAP) Programme,

specifically the Development of a Toolkit for sustainable port development in a Blue Economy (UNEP et al. 2024 - in press).

1.2 Overview of Toolkit for Sustainable Port Development

The key to sustainable ports is to acknowledge the multi-use benefits of natural capital in ports and their surroundings and to bridge the traditional disconnect between natural environmental issues and port planning and development. This requires consideration of the natural environment in the early stages of port planning and design, and not only focusing on environmental performance during operations and maintenance stages, embracing multi-use valuation (ecosystem services) that gives purpose to the need for environmental protection. To assist in practically bridging this disconnect, Taljaard et al. (2021) posed an Integrated Port Management (IPM) framework conceptually positioning and aligning environmental processes within the traditional port development cycle, highlighting the need for coordination, and depicting crucial continuity across such environmental processes (Figure 1.1).

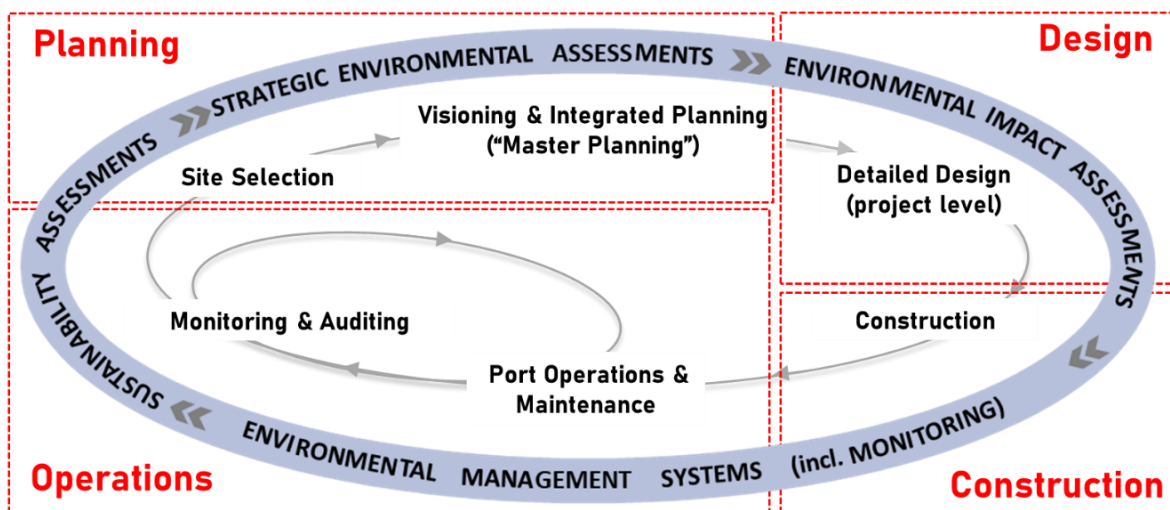


Figure 1.1 The Integrated Port Management Framework, conceptualizing alignment between the traditional port planning and development cycle and key environmental assessment and management processes

The traditional development cycle comprises six key sequential stages: site selection, master planning, design, construction, operations, and monitoring, presented in a logical, cyclical order in Figure 1. It recognises the different time frames in port planning and management in a nested loop arrangement. The larger cycle, involving site selection, planning, design, and construction of new or expansive port infrastructure, representing stages typically occurring at 5-year (or longer) intervals (i.e., longer time scales). The smaller cycle (operations and maintenance, and monitoring and auditing) is nested within the larger cycle, and represents stages that occur continuously, on much shorter (i.e., day-to-day) time scales. To effectively address environmental matters in ports, it must be effectively integrated into existing planning and decision-making processes. Therefore, it is important that environmental processes are proactively aligned and incorporated in all stages of traditional port planning and operation, from the early planning stages through design, construction and into operational management. To achieve this, the

various environmental processes need to become aligned and integral to traditional port planning and development stages as proposed in the IPM framework (Figure 1.1).

The Toolkit for Sustainable Port Development in a Blue Economy comprises a selection of practical management and operational tools aimed at supporting port operators and managers in the WIO region towards advancing sustainable port planning and operations aligned with international best practice (UNEP 2023c). The tools included in the toolkit were largely distilled from international best practice applicable and workable in ports of the WIO region. To assist port operators and managers with contextualisation, the tools have been organised in accordance with the key stages in the IPM framework (Figure 1) comprising planning, design, construction, and operations. Table 1.1 summarises the various tools contained in the Toolkit within each of the four main stages (B – E).

Table 1.1: Structure and content of the Toolkit for Sustainable Port Development

SECTION	TOOLS
A: Introduction	A.1 Rationale
	A.2 Framework for Integrated Port Management
	A.3 Institutional Arrangements
B: Planning	B.1 Guidance on Strategic Environmental Assessment
	B.2 Site selection and Master Planning
	B.3 Planning for Climate Change
	B.4 Scenario Analysis Tool for Planning
C: Design	C.1 Guidance on Environmental Impact Assessment
	C.2 Concept of Nature-based Solutions
	C.3 Design for Biodiversity Offsets
	C.4 Building-with-Nature Design Approach
	C.5 Ecological Enhancement Options
D: Construction	D.1 Construction Environmental Management Plans
	D.2 Dredge Management (also relevant in Operations)
	D.3 Considerations for Port Decommissioning
E: Operations	E.1 Guidance on Environmental Management Systems
	E.2 Circular Economy in Ports
	E.3 Examples: Sustainable Port Development Actions
	E.4 Securing External Finance for Port Development Projects
	E.5 Sustainable Use of Materials and Land
	E.6 Energy Efficiency Management
	E.7 Management of Carbon Footprint
	E.8 Management of Water Consumption
	E.9 Waste Management
	E.10 Ballast Water Management
	E.11 Guidance on Sustainable Hull Cleaning

SECTION	TOOLS
	E.12 Towards Improving Port Environmental Quality
	E.13 Ecosystem Restoration
	E.14 Marine Litter Clean up Technologies
	E.15 Oil Spill Contingency Planning
	E.16 Environmental Monitoring and Evaluation
	E.17 Environmental Information Systems
	E.18 Effective Capacity Development
	E.19 Introduction to Natural Capital Accounting
	E.20 Sustainability Performance Index (linked to SDGs)

It may not be practically possible for ports in the WIO region to implement all the tools in this Toolkit at once, due to human and financial resource limitations. However, by committing to a focussed, on-going process towards aligning environmental matters early in port planning and development, and in the operational and maintenance phases, as is contextualised in the IPM framework, port operators can incrementally achieve environmental sustainability, implementing key priorities specific to their port environments, supported by the tools in this Toolkit. Ideally, the IPM Framework, as well as the guidance and best practice presented in the Toolkit, should be adopted and embedded in national policies pertaining to sustainable port development and management, as appropriate.

1.3 Purpose of Pilot Testing

Towards promoting sustainable port development in the WIO region, the Toolkit needs to be adopted and embedded in national port policies, planning and operations. Some countries in the WIO region have made progress in developing and adopting such policies, which provide the ideal mechanisms to facilitate implementation of the Toolkit. Logical steps towards the adoption and implementation would include:

1. *Acknowledge an organisational commitment to sustainable port developed aligned to SDGs, and recognising that it is increasingly a requirement for a port's 'licence to operate'.*
2. *Adopt the Integrated Port Management framework as a business principle e.g. in the form of a policy statement.* This is simple in concept, but significant in aligning engineering and environmental processes to co-achieve the objective of sustainable port development and operation. This starts to orientate structure to the implementation of the Toolkit.
3. The way to adopt the Toolkit nationally would be to refine and *publish it as a National Guideline*, or to adopt the Regional Toolkit as a national guideline in the Integrated Port Management framework policy (2 above).
4. *Assess current status (Situation Assessment) of Sustainability Performance of the Port.* This can be done using the Port Sustainability Performance Index which was developed by the CSIR (Taljaard and Weerts 2024) and which has been included as a tool in the Toolkit. This will clearly identify gaps in sustainability performance to be considered in future port strategies and planning.
5. Informed by the identified sustainability gaps, port authorities can then identify priorities for intervention, highlighting their context within the IPM framework, (Planning, Design,

Construction, Operations) and *consulting the Toolkit for appropriate practical best practise and guidance to improve performance.*

Within the above context the purpose of the pilot testing phase, supported through the Nairobi Convention (in collaboration with CSIR), is to Demonstrate a science-based approach to incrementally work towards a sustainable port, and in doing so, show how the Toolkit should be applied. In essence, testing the 'implementability' of the Toolkit provides motivation for its inclusion in national policies within the context of the IPM Framework.

This pilot testing process therefore involved the following actions:

- Conduct Situation Assessment to identify the sustainability status of the Port of Ngqura using a prototype Port Sustainability Performance Index developed by CSIR – Taljaard & Weerts 2024
- Distil gaps and shortfalls in achieving selected sustainability outcomes
- Identify sustainability outcome priorities for intervention in the Port of Ngqura
- Demonstrate application of the Toolkit (select suitable tools/methods/approaches that could be implemented to address priorities)
- Prepare a Pilot Testing Report capturing outputs from the above as science-based support for consideration by South Africa's Transnet National Ports Authority (TNPA) and managers in the Port of Ngqura in their strategic and operational planning towards sustainable port development (this report).

Ultimately the execution of appropriate tools/methods/approaches will need to be embedded in the port's business plan (i.e. allocating budgets and human resources). This learning-by-doing process provides a structured approach to get things started and which can be continued going forward as commitment, budgets and resources allow.

1.4 Workshop Agenda and Participants

A detailed Agenda for the Pilot Testing Workshop is presented in Appendix A. Key aspects addressed in the participatory workshop included:

- Situation Assessment – establishing Port of Ngqura's current sustainability performance ('where are we')
- Identification of Areas of Good Performance and Areas for Improvement
- Recommended Actions and Lead Responsibilities to address Areas of Improvement
- Priority Actions for considerations in the Short-Term
- Preparation of Workshop Report (this document).

Participants at the workshop are listed in Table 1.2.

Table 1.2: Participants at Port of Ngqura Pilot Testing Workshop

NAME	AFFILIATION/DEPARTMENT
Angelique Swartbooi	Customer Relations Management (TNPA)
Asakhile Maxama	Environment & Sustainability (TNPA)
Ayabulela Mantashe	Utilities Development (TNPA)
Bongumusa Buthelezi	Planning & Development (TNPA)
Cebile Nzuzo	Environment & Sustainability (TNPA)
Chloe-Page Jonnson	People Management (Employee Assistant Practitioner) (TNPA)
Cumani Mbengo	Economics (TNPA)
Daisy Molamodi	SHE: Project Delivery Unit (PDU) (TNPA)
Deven Seeban	New Business Development (TNPA)
Dudu Mazibisa	Finance (TNPA)
Fungiwe Ntuli	Port Operations (TNPA)
Gillian Claasen	Port Operations (TNPA)
Hilda Gichunge	PMAESA
Jared Bosire	Nairobi Convention
Jean-Paul Fanchette	Seychelles Ports Authority
Khanyisile Sauka	People Management (TNPA)
Lindeni Marobela	Security (TNPA)
Lloyd Mpaluli	Environment & Sustainability (TNPA)
Lumko Ncapai	Environment & Sustainability (TNPA)
Luxolo Dodi	Infrastructure (TNPA)
Monique Haggard	Employee Relations (TNPA)
Motlatso Molapo	SHE Project Delivery Unit (PDU)
Myron Meme	Ministry of Agriculture, Climate Change and Environment, Seychelles
Nandipha Mabindisa	People Management (EAP)
Nelson Mbatha	SHE Oversight (TNPA)
Nobuntu Nkantsu	Change Management (TNPA)
Nomsindisi Dudumashe	Economics (TNPA)
Ofentse Sebitlo	Economics (TNPA)
Ondela Ntshwanti	Enterprise Risk Management (ERM) (TNPA)
Pamela Yoyo	Port Manager (TNPA)
Penina Letela	Nairobi Convention
Phillipa Samsom	Seychelles Ports Authority
Phumlani Grootboom	Port Operations (TNPA)
Rajelle Barbe	Seychelles Ports Authority
Sakhiwo Tetyana	Corporate Affairs (TNPA)
Sammy Weru	Nairobi Convention
Sekgaile Semenya	Corporate Affairs (TNPA)
Sinalo Sodela	Port Manager's Office (TNPA)
Siziwe Batyi	Managing Executive's Office (TNPA)
Steven Weerts	CSIR
Susan Taljaard	CSIR
Tembisa Sineke	Department of Forestry, Fisheries and the Environment
Themba Ntanzu	Infrastructure: PDU (TNPA)
Thulani Dubeko	Harbour Master (TNPA)
Thuso Mgubungu	Marine (TNPA)
Vuyani Ntsimango	Harbour Master (TNPA)
Xola Mkontwana	Strategy (TNPA)
Xolani Ngcinava	Procurement (TNPA)
Yolisa Tibane	Harbour Master (TNPA)
Zandile Mbanga	People Management (TNPA)
Zandile Mbangwa	SHE Oversight (TNPA)
Zinhle Small	Real Estate (TNPA)
Zukiswa Magidela	Environment & Sustainability (TNPA)
Zuko Mdingi	Planning & Development (TNPA)



Figure 1.2 Participants at the Port of Ngqura Pilot Testing Workshop



Figure 1.3 Ms Pamela Yoyo, Port Manager at the Port of Ngqura Pilot Testing Workshop

2. PORTS SUSTAINABILITY PERFORMANCE

2.1 Overview of PSP Index

The Port Sustainability Performance (PSP) Index applied in the situation assessment of sustainability performance in the pilot testing programme was originally developed by the CSIR, in consultation with researchers for TU Delft (Netherlands) and the TNPA (Taljaard and Weerts 2024). The development of the PSP index drew on peer-reviewed literature to synthesise a science-based framework for port sustainability performance and to distil a globally representative list of sustainability indicators. This ‘top-down’, globally orientated approach was complemented by a ‘bottom-up’ approach in which indicators could be customised, and place-based measures, associated targets and ratings were defined by the intended end-users (i.e., port managers). This combined ‘top-down’ and ‘bottom-up’ approach offers a novel solution to align science-based global contexts and local relatability, which has previously been viewed as a key challenge in port sustainability reporting (James 2015; Bell and Morse 2018). For ease-of-use, the PSP Index can be implemented using a simple spreadsheet format (e.g., MS Excel) without acquiring sophisticated technologies or specialised IT skills - a key requirement to secure buy-in and effective mainstreaming by end-users. This globally derived Framework for the PSP Index is conceptualised in Figure 2.1.

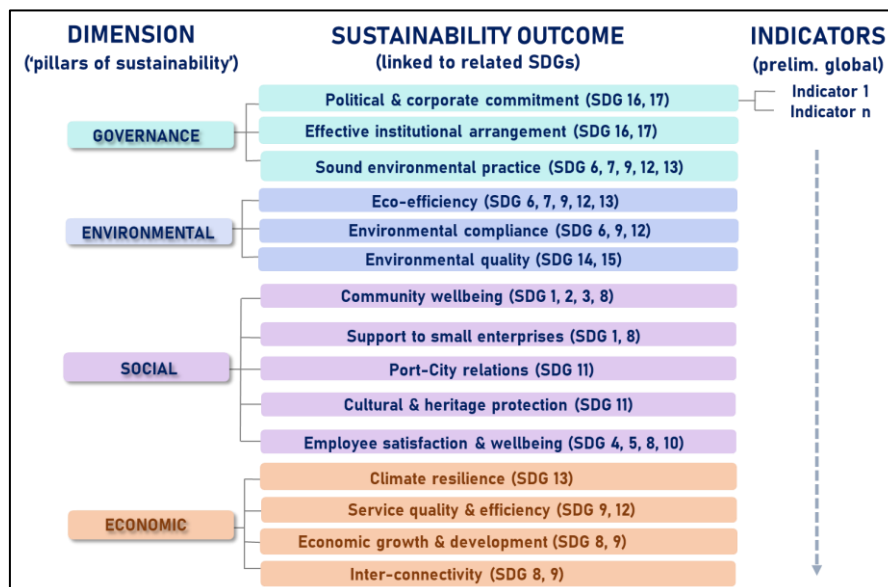


Figure 2.1 Framework for PSP index showing dimensions, associated sustainability outcomes and links to related SDGs (in brackets)

Acknowledging the importance of being globally contextual (James 2015), the four key pillars of sustainability, emerging from the literature, were used as the main dimensions for framing the PSP index, that is environment, social and economic, as well as governance (e.g., Karnauskaitė et al. 2018; Glass and Newig 2019; Ogara et al. 2023). To be useful from a management perspective, James (2015)

argued for the identification of logical sub-categories within each of the key dimensions. Since the primary objective is to assess sustainability performance in terms of good governance, environmental responsibility, social equity, and economic viability (e.g., Stein and Acciaro 2020), it was considered appropriate to focus on using recognisable (port related) sustainability outcomes as sub-dimensions. To be able to compare with the UN's Sustainability Development Goals (SDGs), each of the sustainability outcomes was matched with corresponding SDGs (see Figure 2.1). A list of representative sustainability indicators, distilled from the international literature, was then reorientated to match each of the sub-dimensions in the PSP Framework (see Taljaard and Weerts [2024] for details), completing the top-down, globally comparable aspects for the PSP Index.

For Port of Ngqura, a core team at TNPA identified a series of measures, targets and rating systems for the sustainability indicators included in the PSP Index, addressing the 'bottom-up' locally relatability aspect. The detailed list of measures, targets and ratings systems is presented in Appendix B.

At the pilot testing workshop participants were tasked with allocating specific scores to each of the selected measures (in relation to performance against the selected targets). Participants were also requested to provide motivations for allocated scores to later inform types of interventions that would be required to improve performance (see 'Performance' column in Appendix B). Figure 2.2 summarises the scores that were allocated to sustainability outcomes within each of the four sustainability dimensions, conceptually visualised in a radar diagram - 'Circle of Port Sustainability' in Figure 2.3.

	SUSTAINABILITY OUTCOME	SCORE	DIMENSIONS
GOVERNANCE	Political and corporate commitment	75	82
	Effective institutional arrangements	88	
	Sound management practice	83	
ENVIRONMENTAL	Eco-efficiency	45	68
	Environmental compliance	71	
	Good environmental quality/health	96	
SOCIAL	Community well-being	100	85
	Support to small enterprises	92	
	Port-City relations	75	
	Cultural and heritage protection	100	
ECONOMIC	Employee satisfaction & wellbeing	58	66
	Climate resilience	33	
	Service quality and efficiency	67	
	Economic growth and development	98	
	TOTAL SCORE	75	

Figure 2.2 PSP Index Scores for Port of Ngqura

The overall Sustainability Performance Score for the Port of Ngqura was 75. Results further indicate that for the *Governance Dimension* the Port of Ngqura achieved a score of 82. The Port has a clearly defined legislative framework in which it operates that provides for sustainable development. Specifically, the National Ports Act (No. 12 of 2005) regulates the manner by which ports must be developed and operated. Further, the port has set up formal engagements with port customers, port users, the Nelson Mandela Bay Municipality and other regulatory Authorities responsible or co-responsible for activities within port boundaries. The Port has developed

systems, frameworks, processes, and procedures to guide management, but opportunities to improve implementation have been identified.

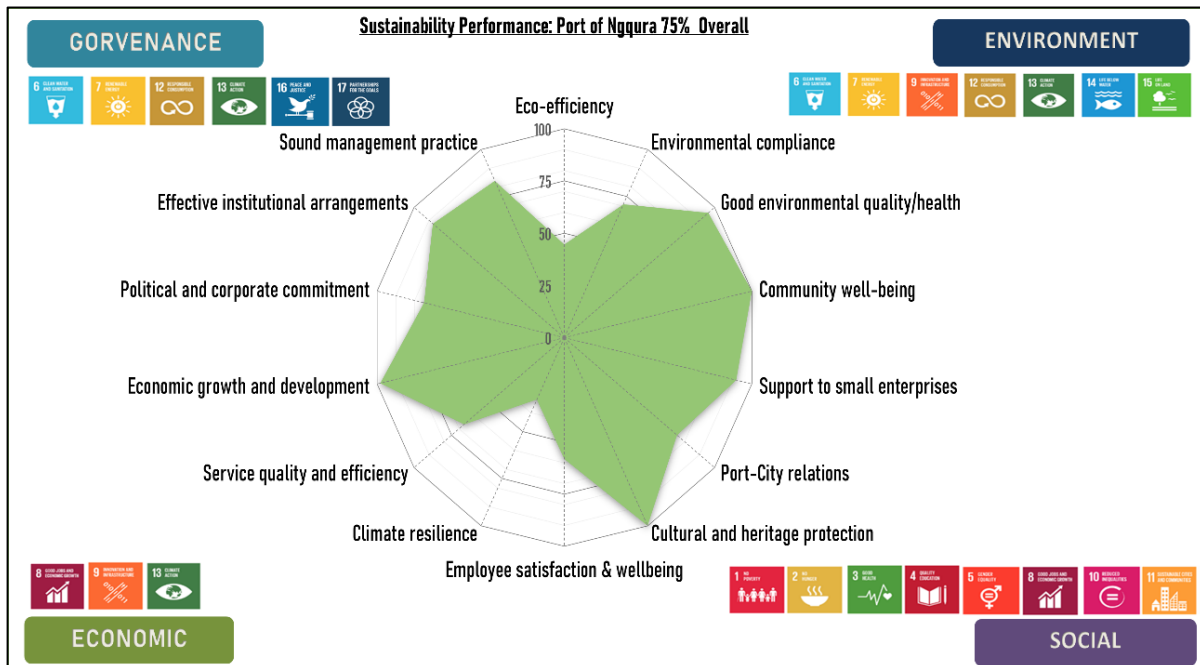


Figure 2.3 The Circle of Port Sustainability for Port of Ngqura

The *Environmental Dimension* achieved a score of 68. Here the Port of Ngqura’s performance in terms of the *Sustainability Outcome: Eco-efficiency* was weak. The port is proactively accounting for its water and energy consumption. However, improvements are required for generating water and energy from alternative sources and accounting for water and energy usage by other port users, including terminal operators and tenants. Furthermore, performance pertaining to the implementation of water and energy saving initiatives is not documented, and therefore efficiency cannot be reported on, nor can it be analysed. Also, a more proactive approach is required towards the reduction of greenhouse gas emissions to account for all other port activities, to effectively monitor and improve overall water and energy efficiency in the port and be in a position to document and account for the overall contribution of each port.

The *Social Dimension* achieved a score of 85. The Port performed well in several *Sustainability Outcomes*, including *Cultural and heritage protection*, *Support to small enterprises* (SMMEs) and *Port-City relations* with the Nelson Mandela Bay Municipality. However, *Sustainability Outcome: Employee satisfaction and well-being* requires interventions to improve the training of employees, to increase capacity building in the ports, improve health and safety performance and achieve the set employment equity targets. Interventions towards CSI are also required as it is crucial for the port to have a healthy distinction between sustainable CSI projects linked to longevity and greater impact versus donations which are more focused on short-term relief. Furthermore, the need for establishment of strategic CSI partnerships with the city was noted.

The *Economic Dimension* achieved a score of 66. *Sustainability outcome: Climate resilience* received the lowest score, highlighting the effort still required to improve the ports' ability to effectively plan for climate change and adaptability in ensuring business resilience. Within the *Sustainability outcome: Service quality and efficiency*, operational efficiency in the port showed poor performance, linked to its inability to meet the targets linked to ship turnaround time, marine service delays, anchorage and cargo volumes during the assessment period. Within the *Sustainability outcome: Economic growth and development*, the port met the targets set. These targets mainly measure performance in terms of capital expenditure (CAPEX) and do not account for operational expenditure (OPEX). A *Sustainability Outcome: Interconnectivity* (which was only recently introduced to the PSP Index) was not evaluated as part of this pilot test but will be further developed going forward. Specifically, this outcome comprises two indicators, that is *Hinterland connectivity* and *International Port connectivity (blockchain)* for which measures, and targets will be developed by the relevant departments in TNPA (Port and Head Office).

In summary, this situation assessment indicates that of the 14 Sustainability outcomes that have been evaluated, four require further actions to improve performance, that is *Eco-efficiency*, *Employee satisfaction and well-being*, *Climate resilience* and *Service quality and efficiency*.

3. RECOMMENDED ACTIONS & RESPONSIBILITIES


Following the *Sustainability Performance* evaluation of Port of Ngqura (Figure 2.3), four Sustainability outcomes were identified as priority areas requiring intervention, that is *Eco-efficiency*, *Employee satisfaction and well-being*, *Climate resilience* and *Service quality and efficiency*.


Guided by the motivations provided for allocated ratings linked to specific indicators and measures (see 'Performance' column in Appendix B), specific actions were developed by workshop participants towards ensuring improvement in the port's sustainability performance. These actions, together with the identified responsible authorities, are listed in Table 3.1. Also indicated in Table 3.1 are priority for actions to be undertaken, to further assist with the allocation of resources in future strategic business planning.




Table 3.1: Recommended actions and lead responsibilities towards sustainable port development in Port of Ngqura, including links to WIO Toolkit for Sustainable Port Development

DIMENSION: GOVERNANCE				
OUTCOME	RECOMMENDED ACTIONS	RESPONSIBLE DEPARTMENT/S	USEFUL TOOL(S) IN TOOLKIT	STATUS/PRIORITY
Political and corporate commitment	Public communication- Develop comms plan to improve communication. Set comms target.	Corporate Affairs	E.1 Guidance on Environmental Management Systems	High
	Assessment metric for how comms is received to be considered, evaluate brand value?	Corporate Affairs		High
	Organizational culture- Consider measure for change management specific for sustainability, true reflection of the culture. (e.g. Sustainability recommendations uptake by relevant departments)	People management (Change management)	A.3 Institutional Arrangements	High
	Measurement for Leadership [Consider employee awareness, strategy incl. monitoring of implementation plan performance, employee support (not equipment rather handbooks, guidelines, employee retention, mentorship programs) - Establish Sustainability Forum	Port Manager	A.3 Institutional Arrangements	High
Effective institutional arrangements	MOU & regular engagements, is there a plan/schedule? Consider adding measure for meetings with minutes.	Port Manager	A.3 Institutional Arrangements E.3 Examples: Sustainable Port Development Actions	High
	Sustainability Forum TOR to be finalized	Environment & Sustainability (HQ)		High
	Use consultative forums to engage with the relevant mandated departments on Port issues- additional measure for engagements in forums outside of the Port. Take PCC & other committees more seriously.	Corporate Affairs		High
Sound management practice	Finalize and implement SMME Framework	Procurement & Supplier Development	A.3 Institutional Arrangements	Medium
	Revise measures to include all Departments & tenants, not only focus on environmental aspects.			High

DIMENSION: ENVIRONMENT				
OUTCOME	RECOMMENDED ACTIONS	RESPONSIBLE DEPARTMENT	USEFUL TOOL(S) IN TOOLKIT	STATUS/PRIORITY
Eco-efficiency	Effective implementation of an EnMS (Consult Toolkit)	Infrastructure, Security, Marine	E.6 Energy Efficiency Management	High
	Energy Management Plan (Baseline, Monitoring and adoption of modern technology, digitization of dashboards and information system)	Infrastructure, Security, Marine	E.7 Management of Carbon Footprint E.8 Management of Water Consumption	High
	Fast track renewable energy projects	Utilities	B.3 Planning for Climate Change E.18 Effective Capacity Development	High

DIMENSION: ENVIRONMENT				
				
OUTCOME	RECOMMENDED ACTIONS	RESPONSIBLE DEPARTMENT	USEFUL TOOL(S) IN TOOLKIT	STATUS/PRIORITY
	Fast track the Pilot Green Hydrogen Tug Project (Addresses climate mitigation, GHGs)	Utilities, Centre of Excellence		High
	Improve water use efficiency (Consult Toolkit)	Infrastructure, Utilities, Property, Environment		High
	Increase & Monitoring of rainwater harvesting e.g. installing Gauges/flow meters for TNPA JoJo tanks	Infrastructure, Environment		High
	CoegaKop Quarry WUL conditions compliance	Infrastructure, Environment		High
	Water Management Plan that investigates alternatives e.g. Desalination, Quarry, water availability assessment	Infrastructure, Environment		High
	Eco-friendly materials to be considered as part of the request for proposal processes (SCM Framework)	Infrastructure-PDU, Procurement		High
	Improve recording of amounts/percentages	Infrastructure & SHE PDU		High
	Implementation of a robust recycling program e.g. awareness, increased number of receptacles.	Environment		Medium
	Improve recycling management on vessels (shipping), encourage the 'circular economy' concept.	Harbor Master		Medium
Environmental Compliance	Reconsider rating for TIMS audits	SHE Oversight	E.1 Guidance on Environmental Management Systems E.16 Environmental Monitoring and Evaluation E.17 Environmental Information Systems	High
Good environmental quality/health	Data generation "What gets measured, gets managed"	Environment	E.12 Towards Improving Port Environmental Quality E.13 Ecosystem Restoration E.16 Environmental Monitoring and Evaluation E.17 Environmental Information Systems	High

DIMENSION: SOCIAL				
				
OUTCOME	RECOMMENDED ACTIONS	RESPONSIBLE DEPARTMENT	USEFUL TOOL(S) IN TOOLKIT	STATUS/PRIORITY
Community well-being	Develop a more proactive approach to community liaison in a more structured manner to strengthen engagements with communities	Corporate Affairs	A.2 Framework for Integrated Port Management A.3 Institutional Arrangements E.3 Examples: Sustainable Port Development Actions	High
	Improve awareness and implementation of Stakeholder Engagement Procedure	Corporate Affairs	E.18 Effective Capacity Development	High
	Strengthen existing partnerships & collaborations with other state-owned entities	Corporate Affairs	A.3 Institutional Arrangements	High
	Improve supplier development in ports & establish possible incubation programmes (In collaboration with other SOEs) Port within an IDZ. What the community sees.	Procurement and Supplier Development	A.3 Institutional Arrangements	high
Employee satisfaction & wellbeing	Improve implementation of 10-point safety plan	SHE	E.3 Examples: Sustainable Port Development Actions E.18 Effective Capacity Development	High
	Consider employee retention statistic as a measure for employee satisfaction & well being	People Management	E.18 Effective Capacity Development	High
	Employee satisfaction survey to be conducted per Port	People Management		High

DIMENSION: ECONOMIC				
  				
OUTCOME	RECOMMENDED ACTIONS	RESPONSIBLE DEPARTMENT	USEFUL TOOL(S) IN TOOLKIT	STATUS/PRIORITY
Climate resilience	Prioritize conducting port operational climate change risk assessment	SHE	B.3 Planning for Climate Change	High
	Add a measure for climate change initiatives being implemented in the port	Infrastructure	B.3 Planning for Climate Change E.3 Examples: Sustainable Port Development Actions	High
	Complete the climate change risk & vulnerability assessments to inform port planning, infrastructure & design.	SHE HQ	B.3 Planning for Climate Change	High
	Establish functional Port Climate Change Clusters	Port Manager & SHE	B.3 Planning for Climate Change	High
	Prioritize climate change adaptation planning (Consult toolkit)	Port Manager	B.3 Planning for Climate Change	High
	Improve management & access to climate change related data	All	B.3 Planning for Climate Change E.17 Environmental Information Systems	Medium
Economic growth and development	Climate change championship is under resourced, a climate change specialist/coordinator	SHE	E.18 Effective Capacity Development	Medium
	Consider how many RFI/Concessions were concluded instead of RFIs issued in a single financial year, and the period it has taken to conclude the agreements as a measure	Utilities and NBD	E.3 Examples: Sustainable Port Development Actions	High
	Consider incorporating Licensing (stevedoring, diving, terminal operator, waste disposal) and their employment figures as a measure for economic growth	Port Manager/ Licensing	E.3 Examples: Sustainable Port Development Actions	Medium
	Incorporate OPEX and investigate economic contribution	Procurement, Economics	E.3 Examples: Sustainable Port Development Actions	Medium
	Data generation "What gets measured, gets managed"	All	E.17 Environmental Information Systems	High
	Investigate jobs created in the port (tenants, terminal operators)	Real estate, Operations	E.3 Examples: Sustainable Port Development Actions	Medium
	Supplier Development jobs	Supplier Development HQ	E.3 Examples: Sustainable Port Development Actions	Medium
	Estimate the GDP contribution (to cover jobs created as well)	Economics HQ	E.3 Examples: Sustainable Port Development Actions	Medium
Hinterland connectivity and International Port connectivity (blockchain)	Economics HQ, CRM, NBD			

4. CONSIDERATIONS FOR THE WAY FORWARD

Following the Pilot Testing Workshop, the Port of Ngqura's Environment and Sustainability Unit will present the outcome (as captured in this report) to the Nelson Mandela Bay Ports EXCO and TNPA EXCO to seek endorsement of the recommended sustainability outcomes, indicators, measures and targets, as well as the Sustainability Performance Results. Such endorsement will be critical to further pursue the successful execution of the priority actions (as listed in Table 3.1).

Within the implementation process the following are considered as crucial steps:

- Responsible departments to implement priority actions identified in the workshop based on clearly defined responsibilities and timelines to ensure effective execution of the priority actions.
- NMB Ports EXCO to oversee the execution of these action plans to ensure alignment with organizational goals and provide necessary support.
- Responsible departments to assess existing budgets for low-hanging fruits and allocate funds in the next budget cycle to address identified priority actions.
- Progress on action plans to be tracked and presented at various structures within the NMB Port, TNPA EXCO, and TNPA board.

The role of leadership in ensuring sustainability is embedded in the business operations cannot be overemphasized. This remains true for the Port of Ngqura. One of key considerations that needs to be made is that of ensuring management remains responsible and is held accountable for the actions and recommendations proposed during the workshop.

The governance structures available in the port such as EXCO (executive committee), Risko (Risk Committee), POC (port oversight committee) can play a critical role in ensuring that the sustainability objectives of the port are achieved. The process undertaken during the assessment revealed how important it is to create an environment that allows the fostering of a sustainability culture, a culture that not only seeks to improve sustainably for reporting but to realise the true value of what a port environment has to offer.

5. KEY REFERENCES

- African Union (AU) 2019. Africa Blue Economy Strategy https://www.aubiar.org/sites/default/files/2020-10/sd_20200313_africa_blue_economy_strategy_en.pdf
- Darbra RM, Ronza A, Casal J, Stojanovic TA and Wooldridge C. 2004. The Self Diagnosis Method A new methodology to assess environmental management in seaports. Marine Pollution Bulletin 48: 420–428. <https://doi.org/10.1016/j.marpolbul.2003.10.023>
- Darbra RM, Ronza A, Stojanovic TA, Wooldridge C and Casal J. 2005. A procedure for identifying significant environmental aspects in seaports. Marine Pollution Bulletin 50 (8): 866–874. <https://doi.org/10.1016/j.marpolbul.2005.04.037>
- Taljaard S, Slinger JH, Arabi S Weerts SP and Vreugdenhil H. 2021 The natural environment in port development: A ‘green handbrake’ or an equal partner? Ocean Coast Manag. 199: 105390. <https://doi.org/10.1016/j.ocecoaman.2020.105390>
- Taljaard S and Weerts SP. 2024. Environmental Solutions for African Ports. Practical validation and refinement of a Sustainability Performance Index for Ports. CSIR Report CSIR/SPLA/SECO/IR/2024/0002/B. South Africa.
- Zhang Q, Geerlings H, El Makhoulfi A, Chen S. 2018. Who governs and what is governed in port governance: A review study. Transport Policy Volume 64: 51–60. <https://doi.org/10.1016/j.tranpol.2018.01.019>
- UNEP, Nairobi Convention Secretariat and CSIR. 2022. Western Indian Ocean: Strategic Framework for Coastal & Marine Water Quality Management UNEP, Nairobi, Kenya. xx pp.
- United Nations Environment Programme, Nairobi Convention Secretariat and Council for Scientific & Industrial Research. 2024 (in press). Towards Sustainable Port Development in the Western Indian Ocean. Toolkit for sustainable port development in a Blue Economy. UNEP, Nairobi, Kenya.
- World Bank. 2017. What is the Blue Economy? <https://www.worldbank.org/en/news/infographic/2017/06/06/blue-economy>
- Bell S and Morse S. 2018. Sustainability Indicators Past and Present: What Next? Sustainability 10(5):1688. <https://doi.org/10.3390/su10051688>
- United Nations (UN) 2015. Transforming Our World: The 2030 Agenda for Sustainable Development. <https://sdgs.un.org/>.
- Stein M and Acciaro M. 2020. Value Creation through Corporate Sustainability in the Port Sector: A Structured Literature Analysis. Sustainability 12: 5504. doi:10.3390/su12145504
- James P. 2015. Urban Sustainability in Theory and Practice: Circles of sustainability, 1st ed.; Routledge: London, UK. <https://doi.org/10.4324/9781315765747>
- Ogara DAE, Morishita J, Davies PJ, Mbui M, Gamoyo M, Njoroge N, Chann IO, Igesa BS and Ochieng SO. 2023. An indicator-based approach to assess sustainability of port cities and

marine management in the Global South. *Front. Mar. Sci.* 10: 1052128.

<https://doi.org/10.3389/fmars.2023.1052128>

Kaliszewski, A., 2018. Fifth and sixth generation ports (5GP, 6GP) – evolution of economic and social roles of ports. https://www.researchgate.net/profile/Adam_Kaliszewski2

Glass L-M and Newig J. 2019. Governance for achieving the Sustainable Development Goals: How important are participation, policy coherence, reflexivity, adaptation and democratic institutions? *Earth System Governance* 2: 100031. <https://doi.org/10.1016/j.esg.2019.100031>.

APPENDIX A: WORKSHOP AGENDA

Date: 08 to 12 July 2024

Venue: Port of Ngqura, South Africa

Day 1: Introduction to Toolkit for Sustainable Port Development and Port Sustainability Performance (PSP) Index

TIME	ITEM	PRESENTER
08:30 – 09:10	Registration	Nairobi Convention
09:15-09:30	Welcome	TNPA – Adv. P. Difeto
09:30 – 10:00	Purpose for Pilot Testing Programme	Nairobi Convention/CSIR
10:00 – 10:30	Transnet's Approach to Sustainability in South Africa's Ports	TNPA- Nelson Mbatha/Zukiswa Magidela
10:30 – 11:00	<i>Tea/Coffee Break</i>	
11:00 – 12:00	Overview of Toolkit for Sustainable Port Development in WIO Region	CSIR
12:00 – 13:00	Introduction to Port Sustainability Performance Index	CSIR
13:00 – 14:00	<i>Lunch</i>	
14:00 – 15:30	PSP Index Population for Port of Ngqura	TNPA – Z. Magidela
15:30 – 16:00	Overview of activities for Days 2 to 5	All facilitated by CSIR

Day 2: Population of PSP Index for Port of Ngqura

TIME	ITEM	PRESENTER
08:30 – 09:00	Re-cap of Day 1	TNPA – Z. Magidela
09:00 – 10:30	Break-away groups to populate PSP Index Port of Ngqura (possibly subdivided into governance and environment aspects)	TNPA guided by CSIR
10:30 – 11:00	<i>Tea/Coffee Break</i>	
11:00 – 13:00	Break-away groups to populate the PSP Index Port of Ngqura <i>continued...</i>	TNPA guided by CSIR
13:00 – 14:00	<i>Lunch</i>	
14:00 – 16:00	Presentation of break-away groups on progress and output as per "the PSP Index Port of Ngqura.	TNPA guided by CSIR

Day 3: Analysis of PSP Index Outputs for Port of Ngqura

TIME	ITEM	PRESENTER
08:30 - 09:00	Re-cap of Day 2	TNPA – C. Nzuzi
09:00 - 10:30	Break-away groups to populate PSP Index Port of Ngqura (possibly subdivided into social & economic aspects)	TNPA guided by CSIR
10:30 - 11:00	<i>Tea/Coffee Break</i>	
11:00 - 13:00	Break-away groups to populate the PSP Index Port of Ngqura continued...	All facilitated by CSIR
13:00 - 14:00	<i>Lunch</i>	
14:00 - 16:00	Presentation of break-away groups on progress and output as per "the PSP Index Port of Ngqura"	All facilitated by CSIR




Day 4: Identification of Toolkit Solutions to address Priority Sustainability Interventions in Port of Ngqura


TIME	ITEM	PRESENTER
08:30 - 09:00	Re-cap of Day 3	TNPA – L. Ncapai
09:00 - 10:30	Outputs as per 'Circle of Port Sustainability' for Port of Ngqura to identify key sustainability shortfalls	All facilitated by CSIR
10:30 - 11:00	<i>Tea/Coffee Break</i>	
11:00 - 13:00	Selection/prioritisation of sustainability interventions to be addressed in Port of Ngqura (short-, medium and long-term)	All facilitated by CSIR
13:00 - 14:00	<i>Lunch</i>	
14:00 - 16:00	Break-away groups to identify key Toolkit solutions to consider for Port of Ngqura (possibly organised into different stages of port development, that is planning, design, construction, and operations)	TNPA guided by CSIR

Day 5: Preparation of Pilot Test Document to support future Port Management Decision-making on Sustainable Development




TIME	ITEM	PRESENTER
08:30 - 09:00	Re-cap of Day 4	TNPA – Z. Sani
09:00 - 10:30	Presentation by break-way groups on progress	TNPA guided by CSIR
10:30 - 11:00	<i>Tea/Coffee Break</i>	
11:00 - 12:00	Preparation of draft pilot test document, including proposed Action List	TNPA guided by CSIR
12:00 - 13:00	Closure and way forward	Nairobi Convention
13:00 - 14:00	<i>Lunch</i>	

APPENDIX B: PORT SUSTAINABILITY INDEX: PORT OF NGQURA

SUSTAINABILITY OUTCOME	INDICATOR	MEASURE	TARGET	PERFORMANCE	RATING	WEIGHTING				RATING		SCORE (% of max rating)				
						Measure	Indicator	Outcome	Dimension	NDQ	Measure	Indicator	Outcome	Dimension		
DIMENSION GOVERNANCE																
Political and corporate commitment 	Legislative framework in place to enable sustainable planning, development, and operations in ports	(National) legislation/formal policy/regulatory framework supporting sustainability in ports	Legislative frameworks in place and implemented	Legislation implemented through Regulatory Universe (compliance system) approved by TNPA EXCO and Transnet	4B: place and largely implemented 2B: place, not implemented 0: B: in place	1	0.25			4	100	100				
	Organizational culture towards sustainable development	Adoption and implementation of a TNPA sustainability outcomes framework (e.g. Sustainability performance index) to inform Transnet's Sustainability outcomes framework	TNPA/Transnet Sustainability outcomes framework (incorporated in KPIs for all related departments) adopted and implemented	Transnet Environmental-Social-Governance (ESG) Strategy and Desired End State Index for Environmentally Sustainable Port Systems (including KPI) but not fully implemented The port has projects aimed at environmental sustainability allocated (Special projects- list projects...) and funding is being spent	4: Adopted and largely implemented 3: Adopted, partially implemented 2: In place, not implemented 1: Partially completed, in progress 0: Not adopted	1	0.25			2	50	50				
	Dedicated budgets allocated and implemented for sustainable development	a. Funding allocated to address environmental issues b. Funding allocated to social issues (Corporate Social Investment)	Budget to address 'greening' environmental issues in port are allocated and spent (as per identified by the port and HQ) CSI budget (approximately 1% of net profit) allocated and spent on identified social issues as per the CSI index		4: Ending allocated and spent proportionally 2: Ending allocated, mostly not spent, or unevenly spent 0: No funding	0.5	0.25	0.30		4	100	100	75			
	Public Communication	Media releases and public documents reporting on environmental and social matters (e.g. TNPA News Bulletin - Weekly/Monthly)	One publication per quarter as per Desired End State (new for next financial year)	For Ngqura CSI budget allocated and 100% was spent	One on shark monitoring programme published in QJRY News, will be better implemented in next financial year, still new. Climate change article?	4: Meet target 2: Partially meet target 0: B: no communication	1	0.25			2	50	50			
Effective institutional arrangements 	Formal in-house institutions overseeing for environmental/social matters in port	a. Formal department at port level overseeing for sustainability matters b. TNPA Sustainability Forum implementation at port level (in terms focus)	Formal/dedicated department fully resourced Annual forum meetings	Environmental Department established and fully resourced, as well as Corporate Affairs Department (social matters?) None in place, not even at TNPA head office though there are terms of reference that needs to be signed off	4: Formal/dedicated department 1-3: get in between rating based on level of resourced 0: No department 4: Quarterly forum meetings	0.5	0.25			4	100	50				
	Dedicated institution to engage with port customers (tenants/terminal operators)	TNPA Customer Engagement Meetings implementation at port level	Quarterly meetings	Port consultative committee and National Port consultative committee that meet quarterly (Provincial Coastal Committee meetings)? Several others please list (Customer relations)...	2: Some forum meetings	1	0.25	0.30		4	100	100	88			
	Specialized organization to engage with stakeholders (e.g. business chamber, SMA, etc) outside port	Port consultative forums (Port Consultative Committees)	Quarterly forum meetings	Port Consultative Committees are held quarterly	0: No forum meetings held	1	0.25			4	100	100				
	Dedicated collaborative arrangement between port & adjacent city (local authority)	Memorandum of Understanding (MoU) or any other formal arrangement	MoU in place and implemented	Air Quality Forum MoU for Fire Service and Security in place but not overall management. Monthly Strategic Interface Forum (MoI and TNPA - ...) to deal with integrated strategic planning. As a terms of reference that is expanded	4: In place and largely implemented 2: In place, not implemented 0: None in place	1	0.25	0.25		4	100	100				
	Sound management practice 	Strategic Environment Assessment (SEA) undertaken	SEA process undertaken at port level (e.g., as part of master planning)	SEAP Implementation as per guidelines; SEA informing Port Development Framework Plans (PDFP)	SEA undertaken as part of ICE but outdated Port specific SEA currently undertaken by NEMW	4: SEA undertaken and mostly informing PDFPs 2: SEA undertaken but not informing PDFPs 0: No SEA implementation	1	0.20			2	50	50			
Environmental Impact Assessment (EIA)	EIA process undertaken for new development at port level	EIA undertaken in accordance with National EIA Regulations, including Environmental Authorization (EA) requirements	Yes, it is undertaken, e.g. Manganese Terminal and Tank Farm	4: EIA undertaken compliant to National Regulations 2: EIA undertaken but not fully compliant to National Regulations	1	0.20			4	100	100					
Environmental Management Systems (EMS)	Implementation of EMS -Transnet Integrated Management Systems (TIMS) - (ISO 14001, 45001 & 9001)	Official EMS certification	Integrated ISO certification in place until October 2024	4: EMS implemented and certified 2: EMS implemented but not certified 0: No EMS implemented	1	0.20			4	100	100					
Management Plans/ Programmes (BMPs), Frameworks or Standard Operating Procedures (SOPs) pertaining to sustainability	a. Air quality	Plan/Programme/Framework/SOP developed and implemented	AQMP	Long term ecological monitoring	4: Plan/Programme/Framework/SOP developed and mostly implemented	0.08		0.40		4	100					
	b. Marine environmental quality	Plan/Programme/Framework/SOP developed and implemented	N/A for Port of Ngqura	Monitoring programme in place	4: Plan/Programme/Framework/SOP developed but not implemented	0.08				4	100					
	c. Soil/groundwater	Plan/Programme/Framework/SOP developed and implemented	Open space management plan in place	Waste Management Plan	4: Plan/Programme/Framework/SOP developed and mostly implemented	0.08				4	100					
	d. Biodiversity management programme (protection of sensitive areas, trade-offs, estuarine habitat, rippled)	Plan/Programme/Framework/SOP developed and implemented	Waste Management Contract in place	Waste Management Plan	4: Plan/Programme/Framework/SOP developed and mostly implemented	0.08				4	100					
	e. Wastewater (effluent and stormwater), incl. permitting	Plan/Programme/Framework/SOP developed and implemented	Waste Management Plan	Waste Management Plan	4: Plan/Programme/Framework/SOP developed and mostly implemented	0.08	0.20			4	100	92				
	f. Solid Waste, including marine litter	Plan/Programme/Framework/SOP developed and implemented	Waste Management Plan	Waste Management Plan	4: Plan/Programme/Framework/SOP developed and mostly implemented	0.08				4	100					
	g. Marine litter clean-up and prevention	Plan/Programme/Framework/SOP developed and implemented	Waste Management Plan	Waste Management Plan	4: Plan/Programme/Framework/SOP developed and mostly implemented	0.08				4	100					
	h. Hazardous Waste	Plan/Programme/Framework/SOP developed and implemented	Waste Management Plan	Waste Management Plan	4: Plan/Programme/Framework/SOP developed and mostly implemented	0.08				4	100					
	i. H&I cleaning	Plan/Programme/Framework/SOP developed and implemented	Waste Management Plan	Waste Management Plan	4: Plan/Programme/Framework/SOP developed and mostly implemented	0.08				4	100					
	j. Ballast water, incl. inventory of invasive species (sea)	Plan/Programme/Framework/SOP developed and implemented	Waste Management Plan	Waste Management Plan	4: Plan/Programme/Framework/SOP developed and mostly implemented	0.08				4	100					
	k. Dredging (Capital and Maintenance) (in compliance to L. SMME (small, medium and micro-enterprises) framework (policy and operational model)	Plan/Programme/Framework/SOP developed and implemented	Waste Management Plan	Waste Management Plan	4: Plan/Programme/Framework/SOP developed and mostly implemented	0.08				4	100					
	Contingency planning (Emergency preparedness)	Status of oil/fuel spill management and contingency planning/ programme business continuity (emergency preparedness plan)	Plan developed and resourced in line with IMDg and Business Continuity Plan	Oil Spill contingency plan in place as well as Business Continuity plan, but needs updating	4: Plan in place in accordance with standard 2: Plan in place, not implemented 0: No plans	1	0.20			3	75	75				

SUSTAINABILITY OUTCOME	INDICATOR	MEASURE	TARGET	PERFORMANCE	RATING	WEIGHTING				RATING	SCORE (% of max rating)			
						Measure	Indicator	Outcome	Dimension		NGQ	Measure	Indicator	Outcome
DIMENSION ENVIRONMENT														
	Water use efficiency	a. Water use efficiency: TNPA (e.g. all water accounted for) may need to also address how efficient water re-use being used?	100% accountability (Water utilized/Bulk water) received	Metered but variances in terms of the water balance spreadsheet (possible water loss on site). Smart meter project any address problem?	4: Better than 95% 3: 85-95% 2: 75-85% 1: Less than 25% 0: Disruption/No data, less than 10%	0.25				3	75			
		b. Water use efficiency: Tenants e.g. all water accounted for?	100% accountability (Water utilized/Bulk water) received	Yes, metered and 100% accountable	4: Better than 95% 3: 85-95% 2: 75-85% 1: Less than 25% 0: Disruption/No data, less than 10%	0.25	0.125			4	100	75		
		c. Water use efficiency: Capital Projects e.g. all water accounted for) may need to also address how efficient water re-use being used?	100% accountability (Water utilized/Bulk water) received	Yes, metered and 100% accountable	4: 0.1% Target 0: Less than 0.1%	0.25				4	100			
		d. Volume of water generated (or % of water use generated) from alternative water resources (e.g. rainwater harvesting, desalination)	% of alternative water resources vs total consumption	About 23 (9 rainwater) tanks at 5 000 litres each (the existing rain water), not metered but probably less than 25%	4: Better than 95% 3: 85-95% 2: 75-85% 1: Less than 25% 0: Disruption/No data, less than 10%	0.25				1	25			
	Climate mitigation	a. Greenhouse gas emissions by TNPA activities	Variation equal or less than 0.5% emission intensity target for TNPA (of previous or 5 year timeline)?	Not yet determined for TNPA but Transnet is a 42% Target for Ports should also be considered to make it more suitable, 0.5% Not yet determined	4: 0.1% Target 0: Better than 0.1%	0.5	0.125			0	0	0		
		b. Environmental friendly fossil fuel used by TNPA (and possible service providers to port, e.g. contracted dredger uses low fuel?) (e.g. vehicles dredger and bulldozers) (assessed % of low S fuel burnt £500 unit)	% environmentally fossil fuel used	All fuel used low sulphur (<500 ppm)	4: 0.1% Target 0: Better than 0.1%	0.5	0.4			0	0		45	
	Energy efficiency	a. Energy consumption of TNPA	Variation equal or less than 0.5% compared to previous year (maybe think in terms of targets to encourage more efficient use of energy)	Energy efficiency 0.22% different from previous year based on electricity consumption in Budget but exceeded NO DATA, but determined to be being good	4: Better than 95% 3: 85-95% 2: 75-85% 1: Less than 25% 0: Disruption/No data, less than 10%	0.25	0.125			0	0	32		
		b. Energy consumption of Tenants	Variation equal or less than 0.5% compared to previous year (maybe think in terms of targets to encourage more efficient use of % of total consumption)	Some solar panel put up but no usage recorded	4: Better than 95% 3: 85-95% 2: 75-85% 1: Less than 25% 0: Disruption/No data, less than 10%	0.25				0	3			
		c. % of energy consumption derived from alternative energy (solar, wind, water, geothermal)	% of total consumption	Could not be determined at the time of the assessment	4: Better than 95% 3: 85-95% 2: 75-85% 1: Less than 25% 0: Disruption/No data, less than 10%	1	0.125			0	0	0		
		d. % of energy consumption derived from alternative energy (solar, wind, water, geothermal)	% of total consumption	Currently developing suitable for re-use, to be better quality generated 1.6 unit for	4: Better than 95% 3: 85-95% 2: 75-85% 1: Less than 25% 0: Disruption/No data, less than 10%	1	0.125			2	50	50		
	Environmental compliance	Efficient and responsible land/sea use (space planning)	% of building material that is eco-friendly	% of total consumption	Could not be determined at the time of the assessment	1	0.125			0	0	0		
			% of construction and building waste re-used/recycled/re-generated vs generated	% of total consumption	Currently developing suitable for re-use, to be better quality generated 1.6 unit for	1	0.125			2	50	50		
		Other waste recycling (water, sediment) i.e. any water and Part greenery (tree planting)	Amount of waste recycled as % of total waste generated	% of total waste recycled versus generated	More than 5%	1	0.125			0	0	0		
		Number of greening projects undertaken (e.g., tree-planting, seeding, etc.)	Number of projects	Number of projects	One project completed (Search and Rescue and included in school, other, also, Necessity)	4: One or more project 0: No project	1	0.125			4	100	100	
Extent to which port spatial planning implement efficient occupation planning (e.g., considering sensitive ecosystem)		Smart spatial planning explicitly acknowledges and accounts for sensitive ecosystem	Smart spatial planning	Open space management plan mapped for occupation in allocating land (e.g. no go areas)	4: One or more project 0: No project	1	0.125			4	100	100		
Good environmental quality/health		Atmospheric emissions	Atmospheric emissions are monitored by port customers (tenants and terminal operators)	Atmospheric emission limits as set per Municipal by laws (per PM10 and P2.5)	Dust bucket (perimeter monitoring) are required by TNPA and compared of targets. There has been exceedances occasionally	4: Better than 95% of limits met 3: 85-95% of limits met 2: 75-85% of limits met 1: Less than 25% of limits met 0: Disruption/No data, less than 10%	1	0.167			3	75	75	
	Wastewater discharges	Wastewater discharges as monitored port customers (tenants and terminal operators)	Targets as per Municipal By-laws for stormwater	Stormwater monitoring points and compare against compliance target. Mostly compliance accept for Oil and grease	4: Better than 95% of limits met 3: 85-95% of limits met 2: 75-85% of limits met 1: Less than 25% of limits met 0: Disruption/No data, less than 10%	1	0.167	0.25		2	50	50		
	Solid waste/hazardous waste	NCRs and Audit findings and non-compliance reports issued to tenants by PE Department as per related legislation	Less than 4 major findings as per Transnet Integrated Management System classification (all classes)	Less than 4 major findings	4: No Major Findings 3: 4-9 Major Findings 2: 10-29 Major Findings 1: 30-99 Major Findings 0: 100 Major Findings	1	0.167			4	100	100		
	Environmental Incidents	Number and severity of incidents (e.g., spills) originating in port boundaries (including anchorage areas)	Level 1 and 2 – NEMA Section 30 and Section 20, Level 3 and 4 – Minor impact on the physical and/or biological environment with short term impairment of the ecosystem/function service disruption with a lesser significance	Nine inside the port boundaries	4: No Incidents 3: Occurrence Level 3 and 4 Incidents 2: Occurrence of Level 1 and 2 Incidents 1: Occurrence of Level 1 and 2 Incidents 0: Occurrence of Level 1 and 2 Incidents	1	0.167	0.3		4	100	100		
Good environmental quality/health	Environmental Assurance audits	Port environmental assurance audits (Projects/Port operations)	% Compliance in the Assurance Reports	The compliance % of EA/ Environmental Compliance audits for infrastructure projects above 95%	4: >90 % compliant 3: 80 % compliant 2: 70% compliant 1: 20% compliant 0: EA Non-compliance or any non-compliance that stopped a project	1	0.167			4	100	100		
	Compliance to TNPA's TMS (equivalent to EMS)	TNPA Internal Audits as per Transnet Integrated Management Systems (TMS)	Target as set out in Transnet Integrated Management System	More than 4 major findings, if considering all major findings and not only those that were not closed	4: <4 Major Findings 3: 4-9 Major Findings 2: 10-29 Major Findings 1: 30-99 Major Findings 0: 100 Major Findings	1	0.167			0	0	0		
	Status of air quality	Air quality monitoring	Environmental/health targets as set out in National Air quality guidelines (Air Quality Act)	Exceedance of PM10	4: More than 95% of targets met (Excellent) 3: 95-90% of targets met (Good) 2: 80-51% of targets met (Fair) 1: 50-25% of targets met (Poor) 0: Less than 25% of targets met (Alert/Floor)	1	0.167			3	75	75		
	Status of marine water quality	Monitoring of water quality status (e.g., long-term port monitoring programme)	Performance as per the Water Quality Index developed by CSIR	Excellent	4: Excellent 3: Good 2: Fair 1: Poor 0: Very Poor	1	0.167			4	100	100		
	Marine sediment quality status	Monitoring of sediment quality status (e.g., long-term port monitoring programme)	Performance as per the Sediment Quality Index developed by CSIR	Excellent	4: Excellent 3: Good 2: Fair 1: Poor 0: Very Poor	1	0.167			4	100	100		
	Status of soil and groundwater quality	Monitoring of soil and ground water status	Performance as per total number of contaminated sites versus uncontaminated. Cleaned versus monitoring as per remediation order	No contaminated sites in the port of Ngqura	4: More than 95% 3: 95-80% 2: 80-51% 1: 50-25% 0: Less than 25%	1	0.167	0.3		4	100	100		
Invasive species (check with Steven Weerts CSIR)	Status of Habitat/Biodiversity status (land and sea)	a. Number of invasive species recorded (marine)	Less than 20% alien invasive species of alien species recorded	Less than 20% species in final report	4: Excellent 3: Good 2: Fair 1: Poor 0: Very Poor	1	0.167			4	100	100		
		b. Area cleared invasive species (land)	Area cleared/area infested	Alien invasive eradication programme in place	4: 21-30% or No Invasives 3: 11-20% 2: 1-10% 1: 0-10% 0: 0-10%	0.5	0.167			4	100	100		

SUSTAINABILITY OUTCOME	INDICATOR	MEASURE	TARGET	PERFORMANCE	RATING	WEIGHTING				RATING		SCORE (% of max rating)				
						Measure	Indicator	Outcome	Dimension	REQ	Measure	Indicator	Outcome	Dimension		
DIMENSION SOCIAL	Community well-being	Social initiatives undertaken by ports, (e.g., maritime career awareness roadshows, part one days sustainability projects)	Three initiatives to be undertaken by ports	4 Initiatives implemented (Evolution of wheelchairs etc to school foundation, Handover to Life Savers to MBE, Donation to NED visually impaired school, Garden beds for local food security, House add/dm)	4 More than 2 initiatives 3 2-3 initiatives 2 1-2 initiatives 1 1 initiative 0 0 initiatives	1	0.36			4	100	100				
	Access rights for communities (e.g., fishing, harvesting of material, cultural activities)	Number of legitimate complaints relating to access denied	Zero legitimate complaints by port users	No official records, do have "complaints" but no feedback to P&P 1 to accommodate Harbours fishing in prohibited in this port, addressing complaint	4 No complaints 3 Less than 20 2 Less than 30 1 Less than 40 0 More than 50	1	0.33	0.2		4	100	100			100	
	Community-based environmental education and awareness programmes/forums	Event/programmes undertaken and supported	Event/programmes undertaken by a port, as well as level of support from community. Assume at least 4 events per year?	Event/programmes undertaken by a port, as well as level of support from community. Assume at least 4 events per year?	4 100% participation in M&E on initiatives (NMA for research purposes, now also opened to community on weekends) 3 Maritime awareness month for schools and students (800 participants). Open days for neighbouring communities and school. Free planting at neighbouring school monthly. 2 Beach clean-ups 1 Beach clean-ups 0 No beach clean-ups	4 Meet target and well attended 3 Regularly meet target, but well attended 2 Meet target but poorly attended 1 Regularly meet target, but poorly attended 0 No programmes	1	0.33		4	100	100				
	Support to small enterprises	Support to environmentally (or sustainability) related community enterprises (e.g., urban vegetation removal, mangrove planting)	Number of enterprises supported	New enterprises to be supported by port	4 More than 9 enterprises supported 3 8-9 enterprises supported 2 6-8 enterprises supported 1 4-5 enterprises supported 0 No enterprises supported	1	0.5			4	100	100				
	Contracts awarded to local/small businesses	a. Contract awarded to SMEs (small, medium and micro-enterprises)	Qualifying Small Enterprises 15% of total spend on contractors	Qualifying Small Enterprises 15% of total spend on contractors	4 More than 95% of targets met 3 95-98% of targets met 2 90-95% of targets met 1 80-25% of targets met 0 Less than 25% of targets met	0.36			4	100				92		
		b. Supporting small enterprise development (new suppliers to be brought in)	At least 1% of net profit after tax allocated to development in port (at TNPA level)	Performance to be confirmed with Africa, estimated at 0	4 Meet 1% target 3 Less than 1%	0.33	0.5		4	100					84	
		c. Supporting small supplier development (development opportunities to benefit existing EEEE suppliers)	Performance to be confirmed with Africa, estimated at 0	4 Meet 2% target 3 Less than 2%	0.33			2	50							
	Part-City relations	Part-City collaboration	Joint event/programmes undertaken with local authority	Number of joint events/programmes to be undertaken by a port.	4 More than 95% of targets met 3 95-98% of targets met 2 90-95% of targets met 1 80-25% of targets met 0 Less than 25% of targets met	1	0.5		4	100	100					
		Part-city relationship	Number of legitimate conflicts/complaints exchanged between port and local authority (Gto)	Zero legitimate conflicts/complaints	4 20 legitimate complaints 3 15-20 legitimate complaints 2 10-15 legitimate complaints 1 5-10 legitimate complaints 0 No legitimate complaints	1	0.5	0.2		2	50	50				75
	Cultural and heritage protection	Protection of cultural and heritage assets	a. Registration of heritage assets b. Status of heritage assets	Inventory register on heritage assets within port boundaries in place (as per SOBA requirements) Status of heritage assets set as per requirements (Heritage Act)	4 Inventory register in place (add number of sites) 3 Inventory or register not in place 2 Heritage permit in place and heritage assets in excellent condition based on monitoring and protection (see financing) 1 100% implementation 0 90-95% implementation	0.5		1	0.2	4	100	100	100			
	Employee satisfaction & wellbeing	a. Hours spent on Training (Implementation of Training Plan - Planned training activities implemented)	ICP training must be developed for each employee, target is to achieve at least 80% of all employees ICPs	4 100% implementation 3 90-95% implementation 2 80-85% implementation 1 60-75% implementation 0 50-55% implementation	0.25			2	50							
	Training (incl. education on sustainability matters)	b. Allocated training budget spent	70% and more of allocated training budget to be spent by port	4 100% of budget spent 3 90-95% of budget spent 2 80-85% of budget spent 1 60-75% of budget spent 0 50-55% of budget spent	0.25		0.25		1	25						
		c. Number of eligible employees trained	70% and above of eligible staff received training as planned	4 100% of eligible staff per annum 3 90-95% of eligible staff per annum 2 80-85% of eligible staff per annum 1 60-75% of eligible staff per annum 0 50-55% of eligible staff per annum	0.25			2	50							
		d. Employee promotion (management)	Target set as per Employee Equity targets based on number of employees appointed in management positions (if and above) vs available positions. Target is 10% of appointment should be internal appointments in target. (refer to succession planning)	4 100% of targets met 3 95-98% of targets met 2 90-95% of targets met 1 80-85% of targets met 0 70-75% of targets met	0.25			4	100							
	Employee engagement forums	a. Employee Intra-type forums undertaken	Intra-type forums to be undertaken at least quarterly by port	4 Yes, undertaken quarterly 3 Intra-type forums 2 Intra-type forums 1 Intra-type forums 0 No intra-type forums	0.36			4	100							
		b. Employee Intra-type forum attendance	Attendance of meetings to be at least 80% of total employees on duty in port	4 100% of total employees 3 90-95% of total employees 2 80-85% of total employees 1 60-75% of total employees 0 50-55% of total employees	0.33	0.11		3	75	75						
		c. Business forums with employees	Targets (in millions) as prescribed by Recognition agreement (incl. 2 L&E meetings, EEC - monthly, SEC - monthly, Level 1 and Level 2 Dept meeting - monthly). Target is 10 meetings for each in a financial year	4 100% of targets met 3 95-98% of targets met 2 90-95% of targets met 1 80-85% of targets met 0 70-75% of targets met	0.33			2	50							
	Employee grievances/satisfaction	a. Grievances handling as per grievance register and procedures	Target to resolve grievances Level 1 (manager to resolve in period allocated) - 3 days, more involved to extend to 10 days, Level 2 (manager reporting line - port manager) 7-7 days, Level 3 (manager beginning count) - 9 days	4 100% of grievances resolved within timeline 3 95-98% of grievances resolved within timeline 2 90-95% of grievances resolved within timeline 1 80-85% of grievances resolved within timeline 0 70-75% of grievances resolved within timeline	0.36		0.2		3	75					57	
		b. Employee Satisfaction Survey	TNPA satisfaction survey score = 3.3 or beyond	4 TNPA scored a rating of 3.3. The Port of Ngqura achieved a score of 3.30 3 3.2 or above 2 3.1 or above 1 3.0 or above 0 Below 3.0	0.33	0.11		1	25	59						
	Employee recognition	c. Legitimate employee complaints as logged on HR Complaints App	Target: Number of employees submitted legitimate complaints less than 5% of number of employees	4 Legitimate complaints: 30 complaints (less than 5% of number of employees) 3 Legitimate complaints: 30 complaints (less than 5% of number of employees) 2 Legitimate complaints: 30 complaints (less than 5% of number of employees) 1 Legitimate complaints: 30 complaints (less than 5% of number of employees) 0 Legitimate complaints: 30 complaints (less than 5% of number of employees)	0.33			3	75							
	Employee wellness	Recognition and reward (e.g., Long Service Awards, Port Managers Awards)	Port implements recognition and reward systems	4 None due to restrictions 3 Recognition and reward carried out 2 Recognition and reward carried out 1 Recognition and reward carried out 0 No recognition and reward	1	0.11			0	0	0					
	Occupational safety awareness	(a) Assistance: Employee Assistance Programme (EAP) and awareness thereof	Quarterly staff awareness session on EAP (6 meetings), Monthly evaluation sessions to mitigate EAP related issues (Awareness committees meetings) (incl. Jan and Dec: 02 meeting per year)	4 100% of staff awareness sessions 3 99-98% of staff awareness sessions 2 95-94% of staff awareness sessions 1 90-85% of staff awareness sessions 0 80-75% of staff awareness sessions	0.5		0.11		4	100						
	Employee safety	Safety Culture Initiatives (e.g., International Labour Organisation Health and Safety Day, TNPA-SE Competitions, SE Awareness Day, Monthly Safety Themes, Monthly Safety Performance Update)	At least 3 of initiatives to be undertaken	4 More than 3 of initiatives (International Labour Organisation Health and Safety Day, TNPA-SE Competitions, SE Awareness Day, Monthly Safety Themes, Monthly Safety Performance Update) 3 2-3 initiatives 2 1-2 initiatives 1 1 initiative 0 No initiatives	1	0.11			4	100	100					
	Employee equity	Less Time Injury Frequency Rate	LTI/FI/FI of 0.1 or below	4 100% of targets met 3 99-98% of targets met 2 95-94% of targets met 1 90-85% of targets met 0 80-75% of targets met	0.36	0.11		0	0	0						
		a. Persons with Disability (PWD)	At least 2% of total employment	4 100% of targets met 3 99-98% of targets met 2 95-94% of targets met 1 90-85% of targets met 0 80-75% of targets met	0.36	0.11		4	100	75						
		b. Black Employees Target (African, Coloured, and Indian)	At least 90% of total employment	4 100% of targets met 3 99-98% of targets met 2 95-94% of targets met 1 90-85% of targets met 0 80-75% of targets met	0.33	0.11		4	100	75						
		c. Women employed	At least 40% of total employment	4 100% of targets met 3 99-98% of targets met 2 95-94% of targets met 1 90-85% of targets met 0 80-75% of targets met	0.33			3	75							
	Employee job security	Ratio between full time employment vs contract workers	80% of employees to be full time	4 100% of targets met 3 99-98% of targets met 2 95-94% of targets met 1 90-85% of targets met 0 80-75% of targets met	1	0.11		3	75	75						

SUSTAINABILITY OUTCOME	INDICATOR	MEASURE	TARGET	PERFORMANCE	RATING	WEIGHTING				RATING NEG	SCORE (% of max rating)			
						Measure	Indicator	Outcome	Dimension		Measure	Indicator	Outcome	Dimension
DIMENSION: ECONOMIC														
Climate resilience 	Climate change (CO) preparedness	Levels of climate change preparedness	CC cluster established, including established and operational CC business continuity management (BCM) plan, acknowledging IPCC scenarios, and addressing infrastructure requirements to increase resilience	Climate Change clusters inactive	4.CC cluster and CC business continuity management planning developed and operational 3.II.CC cluster and CC business continuity management planning developed but not fully operational 2.II.CC cluster established but management plan outdated 1.II.CC cluster established but no management planning 0.II.No forums or management plan re CC	1	0.34	0.34	0	0	0	0	33	
		Climate change early warning systems	Extent of early warning systems implemented (e.g. weather (waves, wind, flooding), seasonal forecasting, also addressing shorter term Climate Change effects, plus local wind, waves in real time (IPOSS))	Early warning systems implemented along with IPOSS systems available at port with seasonal forecasting	Early warning system in place with the South African Weather Services	4.EPWA plus IPOSS available at port level, also seasonal forecast 3.EPWA plus IPOSS but not seasonal forecast 2.IPOSS available at port level 1.II.No forecast never works 0.II.No	1	0.33	4	100	100	0		
		Climate change incident assessment	Loss of unplanned business days/damage incurred lost to severe climate change events (e.g. as per Climate Change incident assessment (Business Impact Analysis, Mission Critical Activities))	Check recovery time objectives with BCM	No Port operation Risk Assessment conducted	4.Above 90% of target 3.80-90% of target 2.60-80% of target 1.80-60% of target 0.00% of target	1	0.33	0	0	0	0		0
Service quality and efficiency 	Technical capacity and efficiency	a. Ship turnaround time	Ship Turnaround Time- 30hrs- Containers 30hrs- Dry Bulk	Ship Turnaround Time - 40.79hrs- Containers 126hrs - Dry bulk	4.Above 90% of target 3.80-90% of target 2.60-80% of target 1.80-60% of target 0.00% of target	0.25		0	0	0	0	25		
		b. Marine service delays	≤ 2%	0.0476	4.Above 90% of target 3.80-90% of target 2.60-80% of target 1.80-60% of target 0.00% of target	0.25	0.167	0	0	0	0			
		c. Anchorage	Anchorage - 20hrs (Containers) 72hrs (Drybulk)	Anchorage - 79hrs (Containers) 84hrs (Drybulk)	4.Above 90% of target 3.80-90% of target 2.60-80% of target 1.80-60% of target 0.00% of target	0.25	0.167	0	0	0	0			
		d. Cargo volumes and commodity type	Cargo Volumes - 703,689 units (Containers); 5,493,238.0 tons (Drybulk)	Cargo volume- 672,757 units (Containers)-95% 5,594,021.5 tons (Drybulk)-100%	4.Above 90% of target 3.80-90% of target 2.60-80% of target 1.80-60% of target 0.00% of target	0.25	0.33	4	100	0	0		67	
	Quality of potable water supplied	Quality of potable water supplied to tenants/vessels	Quality to meet SANS Standards	65% compliant to suite of elements in SANS standards as per Potable water report	A. Compliant to SANS Standards at all times and all elements than 10% of standards met 0. Non-compliant 2. 0% ISSR 90% 3. 94-61% 2. 60-41% 1. 40-20% 0. 0%	1	0.167	0	0	0	0	66		
	Customer satisfaction	Issues addressed at customer engagements meetings	Percentage of issues raised which are closed	15 issues raised, 12 closed	4. More than 95% of targets met 3. 85-95% of targets met 2. 65-85% of targets met 1. 40-65% of targets met 0. 0% of targets met	1	0.167	3	75	75	0			
	Port Security	Number of crime events and/or security incidents	Less than 10 crime events/ security incidents per port	Number of events/incidents (excl. preventative incidents): 7	4. More than 95% of targets met 3. 85-95% of targets met 2. 65-85% of targets met 1. 40-65% of targets met 0. 0% of targets met	1	0.167	4	100	100	0			
	Cyber security	Cyber security incidents	Zero incidents	No incident	A. None 0. Any Incident	1	0.167	4	100	100	0			
	Improvement of Port Infrastructure	Condition of port infrastructure	Maintain good infrastructure condition (based on inspections)	Condition and Building Inspections are undertaken, data to be confirmed (Assume Good)	4. Good 3. Fair 2. Poor 1. Bad 0. None or more of target met	1	0.167	4	100	100	0			
	Economic growth and development 	Port revenue generation through formal port activities	Total Revenue	R776.7M	R751.7M (97%)	4. 100% or more of target met 3. 85-95% of target met 2. 65-85% of target met 1. 40-65% of target met 0. 0% of target met	1	0.2	4	100	100		0	
a. Annual revenue through real estate rental (Based on BEB-BE Level e.g. Level 4, 3, 2,1 or none)			R211.2 M	R192.2M (91%)	4. 100% or more of target met 3. 85-95% of target met 2. 65-85% of target met 1. 40-65% of target met 0. 0% of target met	0.34		3	75	0	0			
Port revenue generation through complementary sectors		b. Annual revenue through tourism/recreational activities	Access (yes/no)	Access (yes/no)	For Ngqura there is only access rights that are granted to the public	4. 100% or more of target met 3. 85-95% of target met 2. 65-85% of target met 1. 40-65% of target met 0. 0% of target met	0.33	0.2	4	100	92	0		
		c. Annual revenue through hosting cruise ships	Set sustainable revenue target for the port	N/A for Port of Ngqura		4. 100% or more of target met 3. 85-95% of target met 2. 65-85% of target met 1. 40-65% of target met 0. 0% of target met	0.33		4	100	0	0		
Business growth opportunities for others in port		a. Private sector opportunities created through requests for information/Proposals and concessions	PR Hydrogen	PR Hydrogen issued	PR Hydrogen issued	4. 100% or more of target met 3. 85-95% of target met 2. 65-85% of target met 1. 40-65% of target met 0. 0% of target met	0.5	0.2	4	100	100	0		
		b. Opportunities for Broad-Based Black Economic Empowerment (BBBEE)	BBBEE Level 1 & 2	BBBEE Level 1 & 2	Concessions- PR: BBBEE Level 2 EPC: BBBEE Level 1 100% BBBEE Level not confirmed	4. 100% or more of target met 3. 85-95% of target met 2. 65-85% of target met 1. 40-65% of target met 0. 0% of target met	0.5		4	100	0	0		
Corporate Tax and VAT generation		Amount of corporate tax and VAT generated for national coffers	27% of Projected Port Profit (R...M)	27% of Actual Port Profit (R...M, 5%)	4. 100% or more of target met 3. 85-95% of target met 2. 65-85% of target met 1. 40-65% of target met 0. 0% of target met	1	0.2	4	100	100	0			
Employment Opportunities		CAPEX Creation of employment opportunities	454 job opportunities	574 job opportunities (126%)	4. 100% or more of target met 3. 90-95% of target met 2. 80-90% of target met 1. 60-80% of target met 0. 0% of target met	0.6		4	100	0	0			
Economic Contribution (Gross Value Added -GVA)	CAPEX (primary measure by which TNPA generate GVA): Contribution to gross domestic product (GDP)	R800M	R826M (103%)	4. 100% or more of target met 3. 90-95% of target met 2. 80-90% of target met 1. 60-80% of target met 0. 0% of target met	0.2	0.2	4	100	100	0				
New Business Production	CAPEX (as brought in by private sector as proxy): Creation of new business opportunities	R325M	R411M (126%)		4. 100% or more of target met 3. 90-95% of target met 2. 80-90% of target met 1. 60-80% of target met 0. 0% of target met	0.2		4	100	0	0			
SUSTAINABILITY SCORE											75			