

Information Memorandum



PORTS AUTHORITY TONGA
Ma'u Mafai Ki he Ngaahi Taulanga

Stevedoring Concession Contract

Port of Nuku'alofa

February 2021



Table of Contents

1.	EXECUTIVE SUMMARY.....	4
2.	TONGA COUNTRY PROFILE	4
3.	TONGA TRADE PROFILE	5
4.	NUKU’ALOFA PORT PROFILE	6
5.	PROPOSED NUKU’ALOFA PORT UPGRADE PROJECT	7
6.	CARGO VOLUMES, HANDLING REVENUE AND FORECAST	7
7.	PAT FINANCIAL PERFORMANCE	10
8.	DESCRIPTION OF PLANT AND EQUIPMENT TO BE OFFERED TO CONTRACTOR	11
9.	ROLE OF PORTS AUTHORITY OF TONGA UNDER THE PROPOSED CONCESSION	11
10.	TARIFF REGULATION	12
11.	LEGAL BASIS OF PROPOSED SERVICES CONCESSION.....	12
	APPENDIX A: PROPOSED CIVIL WORKS FOR QSIW UPGRADE.....	13

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This IM has been prepared for information purposes only in order to assist potential bidders in making their own evaluation of the opportunity to tender for the Stevedore Concession at QSIW. This IM does not purport to be all-inclusive or to contain all of the information that a prospective participant may consider material or desirable in making its decision to participate in the tender.

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1. Executive Summary

The Queen Salote International Wharf (QSIW) in Nuku'alofa is the largest port in Tonga and operates as the singular international gateway for nearly 100% of all physical freight movements in and out of the country. The port plays a vital role in the economy of Tonga supporting the entire country's consumer demand for all commodities including petroleum products, foodstuffs, beverages, automobiles and building products. In addition, Nuku'alofa Port provides the gateway for Tongan export products to regional and global markets. The Port handled about 29,800 twenty-foot equivalent units (TEU) of containerized cargo in FY2019. Traffic for the Nuku'alofa Port, over 50% of which is import volumes, grew at over 11% CAGR from 2013-2019. In 2020, the Covid 19 pandemic caused a sharp downturn in maritime traffic, resulting in a 21% drop in cargo throughput in Q2 & Q3 compared to the same period in 2019.

The Ports Authority of Tonga (PAT) PPP Working Group (WG) is inviting private sector parties to submit tenders for a Stevedoring Concession to operate, manage and maintain the QSIW at Nuku'alofa. An opportunity exists for a suitably qualified private party to:

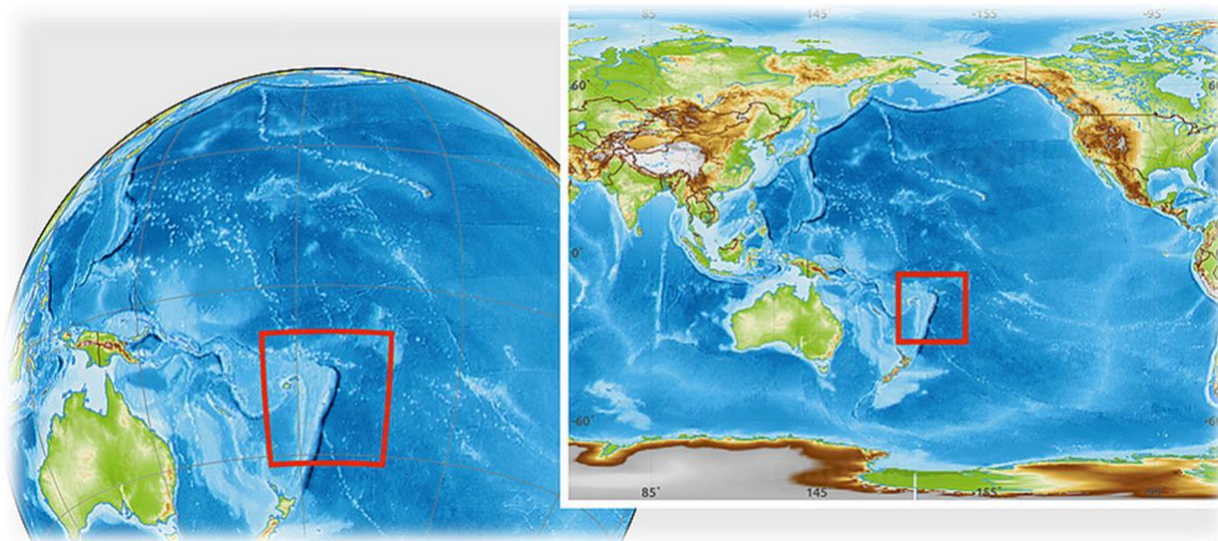
- Provide competitive stevedore and terminal services to PAT with two international berths and capacity exceeding 60,000 TEU
- Improve the Port's value proposition to global shipping lines, importers and exporters in Tonga and increase its market share in the regional transshipment market
- Cooperate with PAT in its plans to develop and modernize the facility
- Manage and operate the terminal as the exclusive stevedore and terminal manager

The proposed stevedoring concession contract term will be for 10 years, beginning on January 1 2022.

2. Tonga Country Profile

The Kingdom of Tonga is located in the South Pacific Ocean, about half way between Hawaii and New Zealand. The geographic coordinates are 21.1790° South, 175.1982° West. The country consists of approximately 170 islands divided among three groups: Tongatapu, which derives its name from the main island where the capital of Nuku'alofa is located; Ha'apai, a series of smaller islands to the north of Tongatapu; and Vava'u, the northernmost islands combining to total 740,000 square kilometres.

Geographic Location of Tonga



Tonga is a constitutional monarchy. The governing structure comprises the Executive (Cabinet), Legislature and Judiciary. A reformed constitution was agreed by the Legislative Assembly in December 2009 and implemented through legislation passed in April 2010. The national economy is consistent with small developing states in the Pacific with GDP for the 12 months period ended December 2019 at current market prices was USD450 million¹.

A large proportion of Tonga's population of 104,494 is employed in the agricultural and fisheries sectors. Growth in the construction, services and tourism sectors is developing in response to the inflow of overseas investments and donor funds.

Over recent years, Tonga has enjoyed robust growth and macroeconomic stability. GDP grew at 3.0% in 2019, 0.2% in 2018, 2.8% in 2017 and 3.1% in 2016, supported by construction, agriculture, fisheries, tourism, strong remittances, and strong private credit growth. The ADB is forecasting an economic contraction of 0.0% in 2020 followed by 2.5% growth in 2021².

3. Tonga Trade Profile

Tonga has a small open economy which is heavily reliant on foreign aid and remittances from Tongans working overseas. Foreign development assistance in the form of construction and infrastructure projects are sources of growth. Tourism is currently modest but with a large potential for expansion. Tonga's main trading partners are New Zealand, Australia, Fiji, the United States and Japan. Most Tongan exports are agricultural produce while imports cover the full range of consumer, fuels and industrial goods.

Tonga is reliant on fuel and merchandise imports with total imports for 2019 at USD611.8 million and exports at USD46.3 million³. Domestic export accounted for USD38.8 million out of the total export while re-export was only USD7.5 million. Compared to 2018, imports increased in 2019 by USD102 million (+20%) and exports increased by USD17 million (+58%). The increase in imports was mainly contributed by an increase in animal products, mineral fuels, prepared foodstuff and machinery. The increase in total exports was driven by gains in fisheries, fresh vegetables and other agricultural produce.

Indigenous exports consist mainly of fish and agriculture products, but their proportion of Tonga's GDP has declined steadily in recent decades. In the 12 months to Dec 2018 overseas worker remittances accounted for 40.7% of GDP⁴.

New Zealand is the major supplier of imports for Tonga in 2019 followed by Singapore, United States of America, China and Japan. Collectively, these countries accounted for 76.4 % of total imports value..

In 2019 New Zealand was again the major destination for Tonga's exports, followed by United States of America with 19 %, Australia with 11 %, Japan with 8 %. Collectively, these countries accounted for 67 % of total exports value.

Trade results for the first quarter of 2020 show a sharp decline in economic activity in Tonga, associated with COVID-19 restrictions especially border closures and temporary halt to international tourism. Compared to the

¹ <https://databank.worldbank.org/data/download/GDP.pdf>

² Asian Development Bank <https://data.adb.org/dashboard/tonga-numbers>

³ Tonga Foreign Trade Report 2019, Tonga Statistics Department SDT: 32-40

⁴ World Bank collection of development indicators 2018

Fourth Quarter, 2019, imports have decreased by T\$ 46,179,753 (26.7%) and the total exports also decreased by T\$ 4,751,727 (33%). The decreased in total exports was driven by an decreased in domestic exports by 27.3 %⁵.

4. Nuku'alofa Port Profile

Nuku'alofa is the national capital, main commercial centre and hosts the primary international sea port which is operated by the PAT. The primary international port is located at the QSIW terminal in Nuku'alofa, which provides facilities for international freight movements, container ship, tanker - bulk petroleum products. There is a separate fisheries wharf facility located in an enclosed basin (Faua Harbour) serving the local and export fisheries industries. International freight imports are transferred at Nuku'alofa for distribution to outer Islands via local inter-island ferry services which operate from a purpose-built Taufa'ahau Tupou IV domestic ferry terminal that includes passenger facilities, ramps and wharves.

QSIW currently has two international berths: Wharf 1 (the original berth facing north with an east-west alignment) and Wharf 2 (facing northwest, with a southwest-northeast alignment), which are 93m and 111.2m long, respectively, with an average water depth alongside of 12m (see figure below).

In addition, two domestic wharves, Wharf 3 (100m in total length) and Wharf 4 (60m in total length), are located towards the southwestern side of the port, with an average water depth alongside of 9m and 4m, respectively. QSIW includes a container yard that is estimated to cover around 3ha. The total international terminal area, including wharf aprons is approx. 32,000m² and provides space for container storage, cargo unpacking sheds, reefer power areas, plant equipment engineering workshop and refuelling bay and terminal gate access to the hinterland.

Layout of existing Queen Salote International Wharf



⁵ Statistics Department Tonga Series No. SDT: 23-160

Petroleum product tankers use mooring dolphins sited at the eastern side of the international wharves. The tankers discharge products using a floating marine pipeline fixed to shore manifold and pump direct to shore based tank-farms approx. 500m from the tanker mooring area. A similar ship to shore operation is provided for LPG gas carriers. It is proposed to increase the capacity of shore-based petroleum storage tanks which would reduce the calling frequency of mid-range tankers and thus the overall number of tanker visits per year.

A dedicated cruise ship wharf (Vuna Wharf) is located approx. 2.2km west from QSIW. Commissioned in 2012 Vuna Wharf at 120m length provides berthing for cruise ships operating on exploration cruise itineraries and round-the-world cruise itineraries that provide approx. monthly calls of cruise liners at Nuku'alofa Port. There are plans to further develop the Vuna cruise precinct with tourist related entertainment and amenities.

5. Proposed Nuku'alofa Port Upgrade Project

The government is planning an upgrade of the QSIW area with funding from the Asian Development Bank. Project preparation activities were initiated in 2018, with feasibility studies for the repairing, strengthening and lengthening the existing wharves at QSIW in Nuku'alofa Port as an international gateway container and general cargo terminal. Upgrades and extensions are planned to berths No 1 and 2, while berths 3 and 4 will remain outside of the stevedore concession area. As illustrated in the layout below, the infrastructure works are planned to begin in 2021/22 and will include an upgrade of wharf 1 and extension of wharf 2, terminal pavement reinforcement, expanded reefer container storage and various other improvements to the terminal yard and administration facilities. These upgrades are expected to improve circulation, efficiency, capacity, and security. Activities not related to international freight will relocate to the domestic ferry terminal at Taufa'ahau Tupou IV domestic terminal and the planned fisheries and slipway precinct at Sopa.

Layout and proposed timing of planned Queen Salote International Wharf upgrades



- Green: Existing pavement to remain with minor surface repairs
- Blue (Zone 1): Eastern pavement to be raised behind Seawall with South-East construction site Access
- Yellow (Zone 2): Western pavement and substation to be upgraded with South-West Construction Site Access
- Orange (Zone 3): Central pavement to be upgraded and old substation demolished with South-West Construction Site Access

	Activities	Due Date
Stage 1	Mobilisation	Q4 2021
	Wharf 1 and Eastern Yard Operational	Q4 2022
Stage 2	Switch from Wharf 2 to 1 for Operations	Q3 2022
	Switch from old to new substation	Q2 2023
	Wharves and Yard Operational	Q4 2023
Stage 3	Access and Gatehouse area	Q1 2024
	Project Completion	Q2 2024

6. Cargo Volumes, Handling Revenue and Forecast

The Nuku'alofa Port supports Tonga's demand for all commodities including petroleum products, foodstuffs, beverages, automobiles and building products. It also provides the gateway for Tongan export products to regional and global markets including frozen fish and agricultural products.

In 2019, total cargo throughput was 430,656 cargo tonnes, and container throughput was 26,046 TEUs. In 2018, total cargo throughput was 383,228 cargo tonnes and container throughput was 24,716 TEU⁶.

The ship to shore stevedoring operations for all containerised and breakbulk cargoes are currently handled by licensed private stevedore operators. These operators provide ship-to-shore services that include lashing and unlash cargo onboard ships and load/discharge/restow cargos between the ship and shore using ships cranes⁷.

PAT currently handles the transfer of cargo and containers from ships side to/from stack (marshalling) to storage areas. Then PAT handle the delivery and receipt of cargo and containers through the gatehouse. In addition, PAT are also involved in portside packing/unpacking and storage of LCL containers at a dedicated Container Freight Station (CFS) cargo shed located within the QSIW boundary.

The vessel forecasts are compiled from an analysis of the current operating shipping lines and the growth of regional freight volumes handled in their respective trade routes.

The existing petroleum tanker ship arrivals at Nuku'alofa was initially based upon coastal tanker arrivals of approx. 3000 DWT delivering to current two importers. This assumption altered at year 2024 in the forecast based upon a switch to Mid-Range Tankers of 45,000 DWT providing greater capacity and thus fewer ship calls required. This assumption requires larger capacity onshore storage tanks and improved marine services and berthing arrangements.

The gas tanker forecasts assumed no change to the existing scale and capacity of vessel serving Tonga. The LPG tankers of similar scale to the vessels; LPG Maea and MT Astrid at 3800 DWT were assumed as constant based upon interviews of future national demand with Tonga Gas.

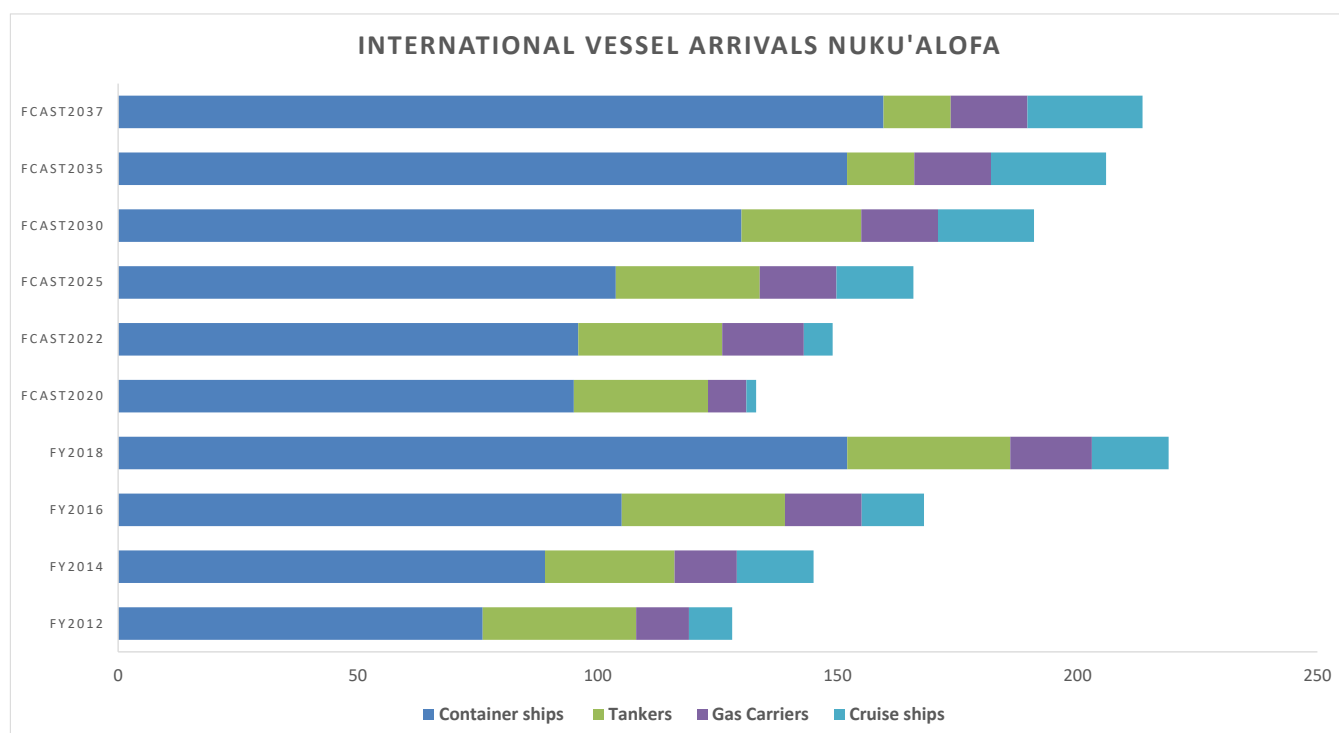
Petroleum product tanker ships and bulk liquid cargoes are not part of this concession.

Container ship forecasts were based upon the composition of existing trade partners and routes, existing transshipment and relay links, vessel space sharing arrangements and shipping consortium partnerships.

⁶ Ports Authority of Tonga – Annual Reports

⁷ There are no harbour cranes operating at QSIW

Actual / Forecast – International Vessel Arrivals Nuku’alofa 2012 - 2037



Source: PAT Operations Dept Statistics

A modest freight growth rate is forecast to increase 2018 container volumes from 26,300 TEU to 30,000 TEU by 2028. This linear growth has been affected by COVID19 which has seen a reduction of both imports and exports and cessation of transshipments. Transshipment of containers at Nuku’alofa Port has shown recent increasing interest by shipping lines serving the scheduled South Pacific trade routes and this is anticipated to be restored when regional volumes return to pre-COVID levels. Annualised transshipment volumes for 12 months to June 2019 are calculated 1,400 TEU being a significant increase from 15 TEU for 12 months to June 2018⁸.

Unpacking of LCL containers is also a requirement at Nuku’alofa Port with a Container Freight Station (CFS) unpacking shed catering for an annualised average of 350 TEU (15,000 m² of cargo) for the past three years to 2018. Additional non-containerised freight handled at Nuku’alofa Port included 2,800 motor vehicles and 12,400 tonnes of breakbulk.

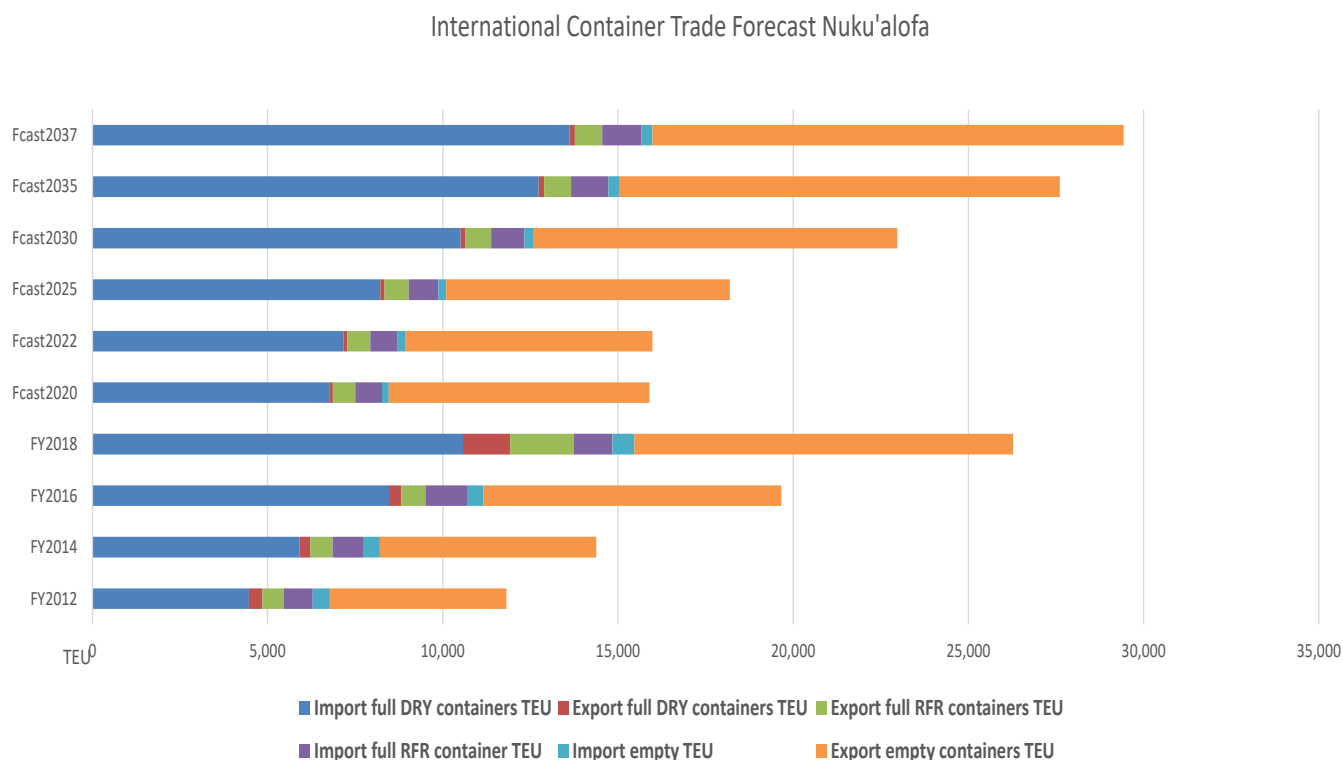
Freight demand calculations are derived from data sourced from PAT statistics and linked to economic growth data. Low population growth at 0.57% and GDP at 1.94% combined to formulate a mid-point forecast for freight volumes⁹. A peaking is anticipated due to planned infrastructure projects in 2021-24 after which a return to a natural economic demand level is expected. Other infrastructure projects consistent with road rehabilitation and other government projects are expected to continue to generate volumes of imported building materials between 2015 and 2035.

⁸ Ports Authority of Tonga – Operations Dept. statistics

⁹ World Bank Group Meta-data statistics GDP report December 2017

World Bank Group Meta-data statistics Population report December 2017

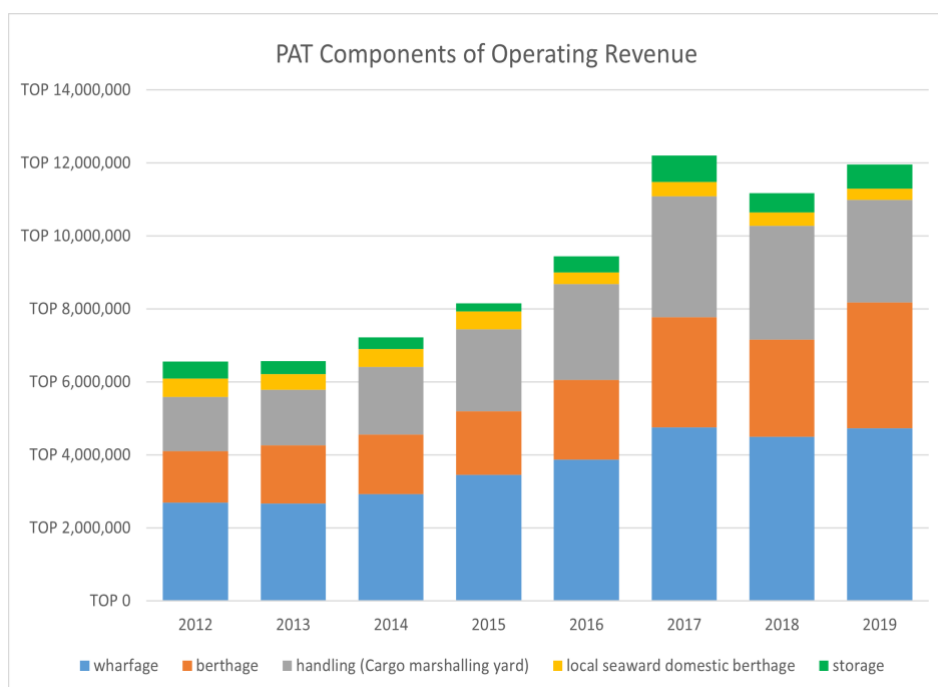
Actual / Forecast – International Containers 2012 - 2037



7. PAT Financial Performance

The PAT is one of Tonga's most profitable public enterprises, returning an average of 10.5% on assets from 2015 to 2019. Volumes of freight movements steadily increased over the period, with a sharp uptick in 2017 due to large construction projects in Tongatapu¹⁰, the completion of which resulted in return to a normalised trade growth of cargo movements and related revenue in 2018 - 19.

Port dues and charges from ship arrivals and cargo movements at Nuku'alofa are the primary revenue source for the PAT, with wharfage and berthage jointly contributing an average of 66% of



¹⁰ Interviews with local shipping agents confirm large increases in project construction related steel & cement

operating revenue in the 2018-2019 period. Cargo marshalling services contributed 23% of operating revenue during the same period.

8. Description of Plant and Equipment to be offered to Contractor

The contractor will have unimpeded access to and exclusive use of the QSIW and buildings (office, cargo workshop and cargo shed) associated with stevedore cargo operations on the QSIW for the duration of the contract (see layout diagram in section 4 above). In addition, the contractor will have the option to purchase from PAT the following equipment currently located at the QSIW, and which has been used by PAT for its cargo marshalling services:

ITEM	MAKE	MODEL	Year Acquired
Forklift truck	TCM	FHD30T3A	Oct-14
Terminal Tractor	Capacity	TJ9000	Apr-15
Terminal Tractor	Capacity	TJ9000	Apr-15
Terminal Tractor	Capacity	TJ9000	Apr-15
Reach Stacker	Kalmar	DRT 450	Dec-15
Forklift truck	TCM	FHD30T3A	Jun-16
Forklift truck	TCM	FD160 S-3	Jun-16
Reach Stacker	Kalmar	DRT 450	Jan-17
Forklift truck	TCM	FHD30T3A	Feb-17
Container Trailer	Foshan Shunde	JSG 40-D	Sep-17
Container Trailer	Qingdao Star	DDO60SD	Jan-18
Single Pick Container handler	Kalmar	DCU100-45 ES5	Nov-18
Container Ramp	AstroLift NZ		Nov-18
Container Forks Pair	TVH New Zealand Ltd	FX02 - 24	Nov-18

A condition assessment and valuation of the equipment was conducted in May 2019 by Hymans Valuers and Auctioneers and is available to tenderers in the virtual data room (see Request for Tender section 5.6).

9. Role of Ports Authority of Tonga under the proposed Concession

The QSIW at Nuku'alofa Port is owned and operated by PAT, which is the exclusive supplier of marine and cargo-handling services at Nuku'alofa. PAT currently licenses ship to shore cargo handling services to four private stevedores. Under the proposed concession contract, all cargo handling services will be provided on an exclusive basis by a single contractor.

PAT is currently seeking ISO 9001 certification, a process which should be complete by the time the concession contract commences on Jan 1 2022. PAT will require the concession contract holder to also obtain ISO 9001 certification within 3 years of the concession contract commencement date.

PAT's obligations and role under this stevedoring concession contract will include but not be limited to the following:

- Deliver the existing terminal and buildings including the equipment to be purchased by the contractor, in a form and timing such that it can be operationalized by the contractor immediately upon effectivity of the concession contract;

- Assist the contractor in securing necessary government approvals and other consents for the concession contract;
- Provide efficient marine services, for example pilotage, towage, etc. required for efficient port operations;
- Maintain support infrastructure, for example road connections to hinterland, utilities, lighting and support operations, including security, as required to maintain efficient port and terminal operations;
 - NB: The contractor is obliged to comply with the PAT security requirements for the overall Port; and, comply with other safety and pollution controls as mandated under government regulations.
- Manage the implementation and contractor's performance of the concession contract, including monitoring of contractor KPIs; and
- Provide other support as required by the concession contract.

10. Tariff Regulation

PAT charges for ships and cargo use of its marine facilities and wharves through a customary regime of port dues tabulated in a tariff document. The tariff document of port related dues and rates is administered by PAT and governed by the Ports Authority Act 1998.

Section 12 of the Ports Authority Act 1998 gives PAT the authority to *“operate or manage a port listed in the Schedule as a commercial undertaking and for that purpose may levy such port charges, fees and rates whatsoever arising from the management and operation of any port, and may similarly increase, decrease or abolish any such charge, fee or rate, thirty days after publication.”*

Tariffs set by PAT do not require endorsement by any other government or legislative body, but the publication of the tariff in the Gazette is the responsibility of the Prime Minister's Office.

Under the proposed stevedoring concession contract, PAT will continue to regulate cargo handling and storage tariffs, and proposes to consolidate the ship to shore and marshalling charges into a single stevedoring tariff.

11. Legal Basis of Proposed Services Concession

Section 12 of the Ports Authority Act 1998 gives PAT the powers to contract and regulate commercial services within the port, including stevedoring, marshalling and storage.

Section 41 gives PAT the power to levy fees for the use of its facilities:

(1) It shall be lawful for the Authority to levy fees for the use of any of its infrastructure, facilities, assets or equipment, or the provision of any service provided by its employees, agents or sub-contractors.

(2) Such fees shall be determined by resolution of the Board and shall, subject to section 12, come into effect 30 days after publication of such fees

Appendix A: Proposed Civil Works for QSIW Upgrade



Civil Works for the Queen Salote International Wharf Port Upgrade

Informative Session

24 June 2020



Background



- The Government of Tonga requested that the ADB undertake project preparations for the upgrade of Queen Salote International Wharf in Nuku'alofa
- The construction of the Taufa'atau Tupou IV Domestic wharf allows the current configuration and operation of the QSIW to be investigated.
- The purpose of the project is to upgrade and develop the Queen Salote International Wharf (QSIW) in Nuku'alofa Port as an international gateway container and general cargo terminal.
- The project will allow Nuku'alofa Port to accommodate future trade growth and expansion, thereby strengthening Tonga's economic and social connectivity in the Pacific.

Project Programme

Design Phase – 2020

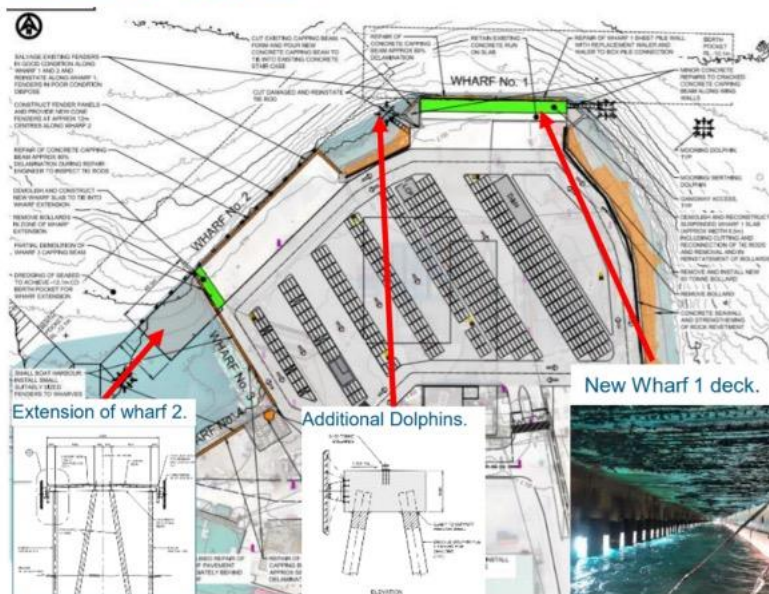
Tender – Q3 2020

Award – Q1 2021

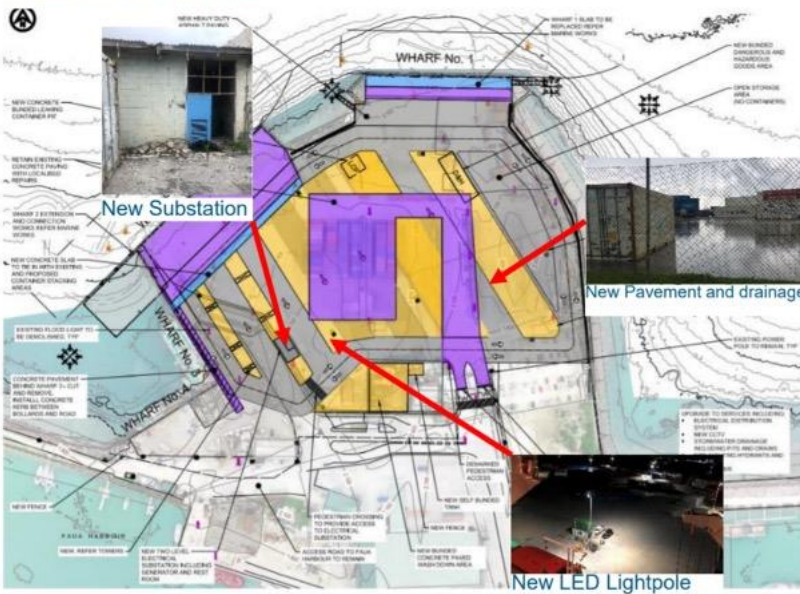
Time Frame: 2020 to 2024



Marine Works



- Wharf 2 Extension with dredging to -12.6m CD.
- Construction of four concrete dolphins with associated gangways.
- Demolition and replacement of Wharf 1 deck and re-instatement of tie rods.
- Construction of new concrete seawall and topping of existing rock revetment along northern and eastern foreshore.
- Repair of concrete capping beam along wharves with Installation of hybrid cathodic protection.
- Install cathodic protection system to Wharf piles.
- New ladders, lifebuoys and fenders along all wharves.
- Installation of navigation aids on reef edge next to wharf 4.
- Relocate channel marker no.2 with wave measuring device.
- Construction of new concrete seawall and topping of existing rock revetment along northern and eastern foreshore.



- Demolition of electrical substation, domestic shelter and restrooms.
- Construction of Asphalt pavement for ring road
- Construction of Concrete pavement for container stacking
- Installation of new tower lighting and new refer gantries
- Construction of new electrical substation including generator room, toilets and septic tanks
- Upgraded stormwater drainage system
- Installation of foul water system
- Self-bunded fuel tank system with consumption monitoring
- Construction of new concrete pavement at washdown area
- Upgrade of access road with overlay and additional drainage.

Phasing and Tentative timeframe



- Green: Existing pavement to remain with minor surface repairs
- Blue (Zone 1): Eastern pavement to be raised behind Seawall with South-East construction site Access
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