

FIJI PORTS CORPORATION LTD

# Converting ~~Current~~ Challenges into Future Opportunities

BLUE WATER SEMINAR

5 – 7 December, Auckland, NZ

Presentation by Vajira Piyasena , CEO, FPCL, – 7 December 2016

*This Presentation is best viewed in Microsoft PowerPoint 2010 or Versions Above*



## **Vision**

'To be the maritime gateway in the Pacific region through facilitating waterborne transport, trade and commerce '

## **Mission**

'To develop, maintain and improve key seaport and ship repair facilities to enhance the economic growth and prosperity of Fiji '

## **Values**

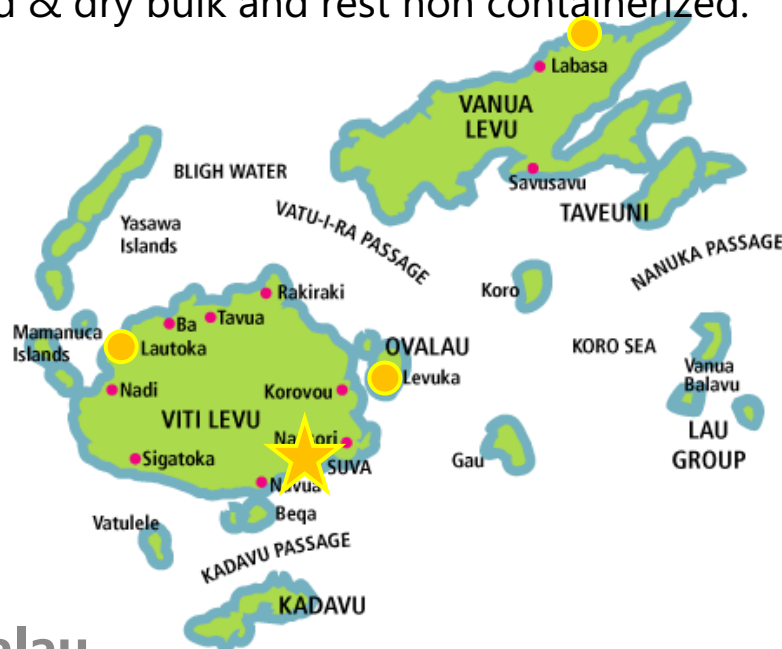
- ❖ Professionalism
- ❖ Commercial Stewardships
- ❖ Strategic Innovation
- ❖ Progressive Leadership
- ❖ Corporate Citizenship
- ❖ Employee Well Being and Diversity

# Main Ports of Entry

## Fiji Ports owns and carries out maritime operations in four main ports of:

### ■ Suva

- Handles **54%** of the total Fiji's export and import cargo.
- Comprised of **72%** containerized , **25%** both liquid & dry bulk and rest non containerized.



### ■ Malau

- Handles **3%** of the total cargo throughput.
- Comprised of **49%** liquid bulk and **51%** dry bulk.

### ■ Lautoka

- Handles **42%** of the total export and import.
- Comprised of **38%** containerized rest **62%** liquid & dry bulk cargo.
- Vuda - a liquid bulk terminal which handles the bulk of the liquid bulk cargo.

### ■ Levuka

- A fishing port handling **0.22%** of the total import & export cargo.
- This constituted **75%** frozen fish for the government owned tuna canner with the balance being liquid bulk.

# Second Tier Ports

These are ports of entry with specialized functions but is administered by FPCL for statutory requirements like ISPS, etc.

## Wairiki

- A dedicated woodchips terminal commenced operations in 2012.

## Rotuma

- Established through the Fiji Government's initiative in assisting the Micronesian countries in the Pacific for exportation of root crops with shipping schedules covering Fiji / Rotuma / selected Micronesian countries / Rotuma / Fiji.





# Local Wharves Managed by FPCL

## Suva

- ❑ Mua i Walu 1 - dedicated fishing vessel facility
- ❑ Mua i Walu 2 - Local vessels berthing

## Lautoka

- ❑ Cater for vessels servicing the islands in the Mamanuca and Yasawa group



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# Post Privatization Challenges

- Business Model
- Management Structure
- Asset Transfer
- Legal Responsibility under  
Seaport Management Act 2005

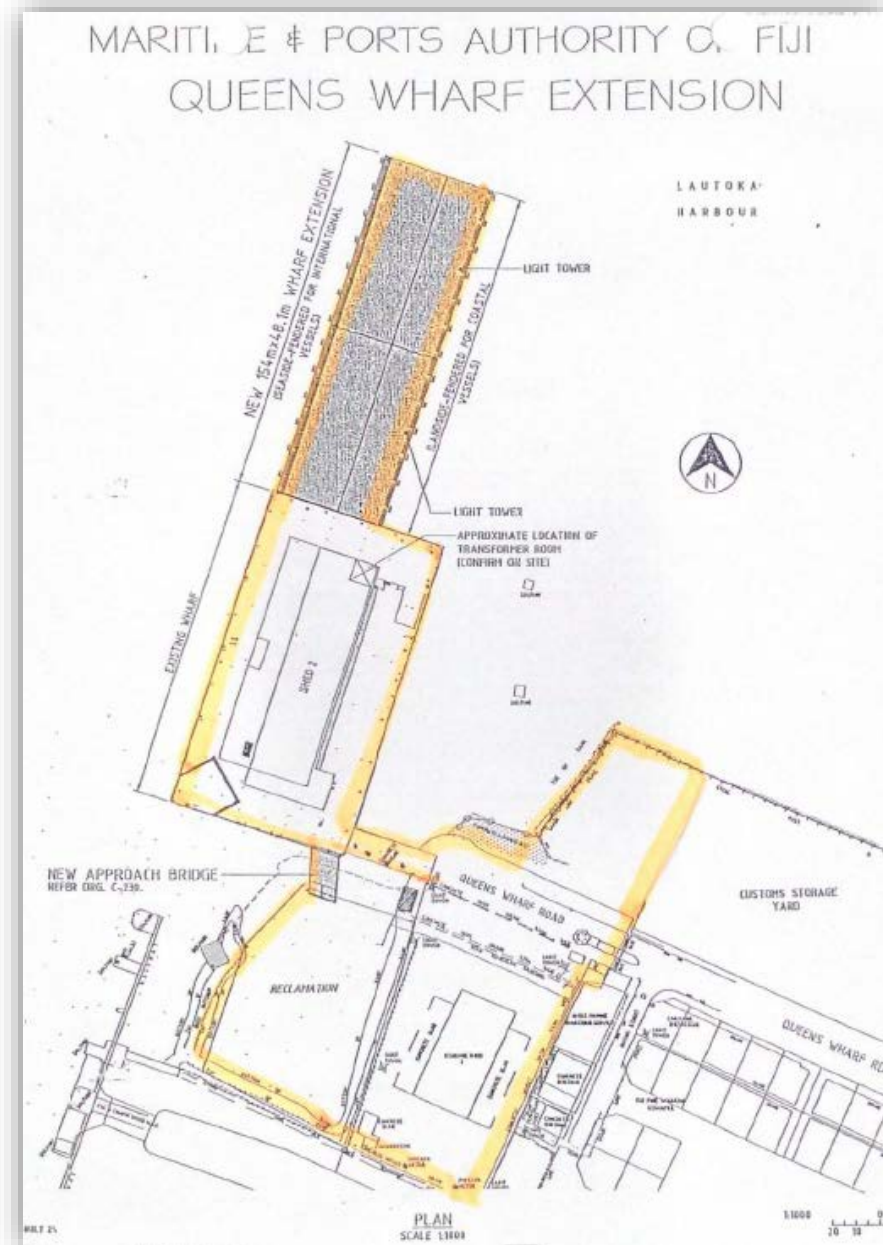
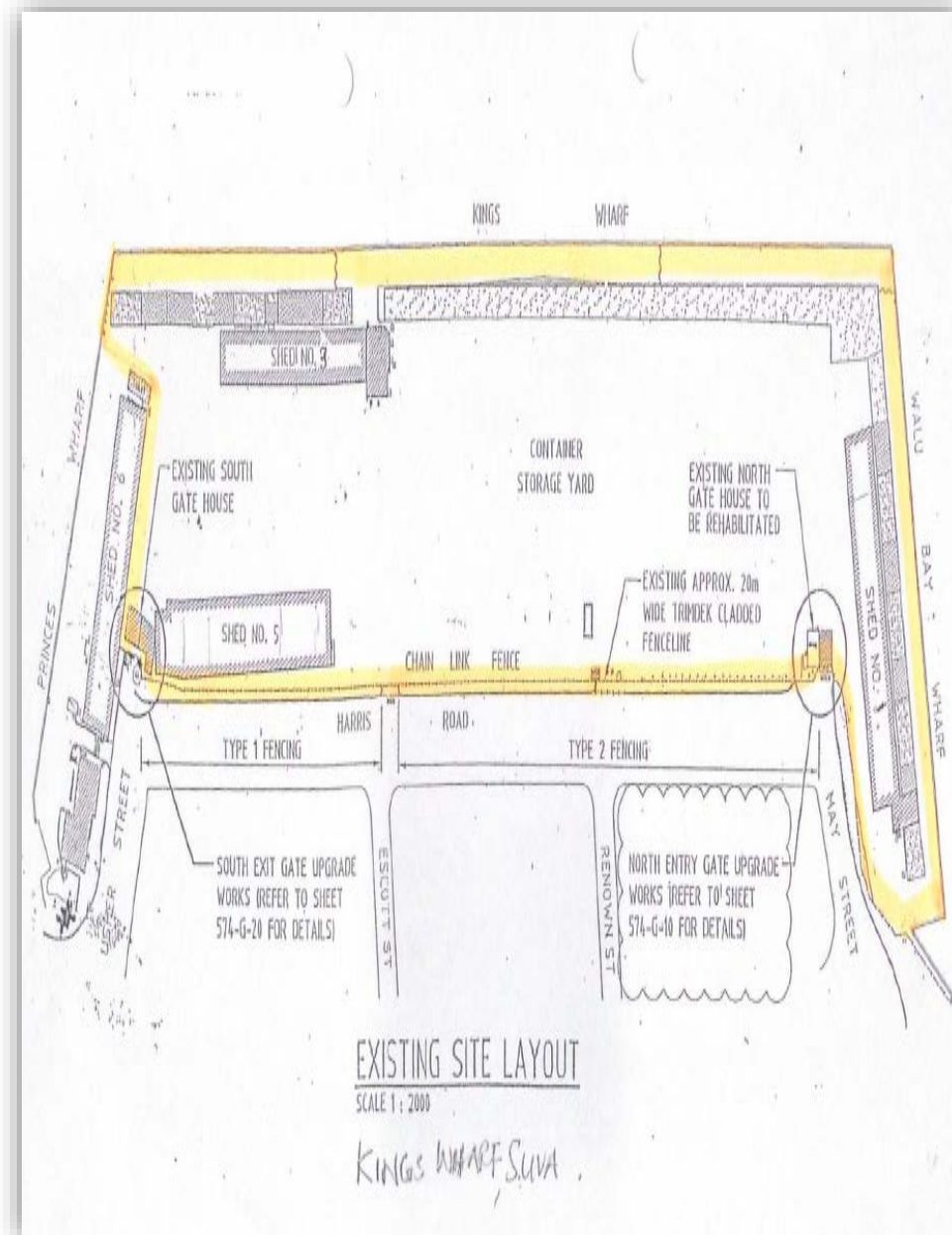
# The First Public Private Partnership (PPP) in 2013

- Ports Terminal Limited (PTL) → subsidiary of Fiji Ports Corporation Ltd (FPCL) until July 2013
- FPCL sold 51% of shares in Ports Terminal Limited to Aitken Spence PLC (ASPLC) for FJD 10.35m
- ASPLC acquired management rights of Suva and Lautoka ports via PTL
- ASPLC has not bought the assets (except for shore cranes) → only management rights
- FPCL + ASPLC → **Shareholders Agreement** → govern finance, administration and performance of PTL in Suva and Lautoka
- FPCL retains control of PTL → governed under terms of **Shareholders Agreement**
- Port management governed under performance based **Concession Agreement**

Services Provided by FPCL, FPTL & FSHIL					
FPCL		FPTL		Engineering	
Main Services	Ancillary Services	Main Services		<ul style="list-style-type: none"><li>Fitting, machining and tuning, &amp; stern gear servicing</li><li>Deck machinery – installation &amp; repairs</li><li>Valve &amp; plumbing repairs</li><li>General pipe work</li><li>Underwater repair engineering works</li></ul>	
<ul style="list-style-type: none"><li>Harbormaster's Function</li></ul>	<ul style="list-style-type: none"><li>Shifting</li></ul>	<ul style="list-style-type: none"><li>Stevedoring</li></ul>			
<ul style="list-style-type: none"><li>Pilotage (percentage of services subcontracted to private company)</li></ul>	<ul style="list-style-type: none"><li>Incineration</li></ul>	<ul style="list-style-type: none"><li>Cargo Handling Machinery</li></ul>			
<ul style="list-style-type: none"><li>Tugboat Operations (Subcontracted)</li></ul>	<ul style="list-style-type: none"><li>Fumigation</li></ul>	<ul style="list-style-type: none"><li>Storage</li></ul>			
<ul style="list-style-type: none"><li>Mooring Services (Subcontracted)</li></ul>	<ul style="list-style-type: none"><li>Weighing</li></ul>	<ul style="list-style-type: none"><li>Receiving and Delivery</li></ul>		<b>Electrical</b> <ul style="list-style-type: none"><li>Marine electrical services, industrial electrical services</li><li>Service &amp; repair of electrical generators &amp; motors</li><li>Auto electrical (marine, industrial &amp; heavy mobiles)</li><li>Re-winding generators &amp; motors, refrigeration &amp; control systems</li></ul>	
<ul style="list-style-type: none"><li>Dredging (Administered by FPCL –Work carried out by private contractor)</li></ul>	<ul style="list-style-type: none"><li>Supply of Water &amp; Shore power</li></ul>	FSHIL			
		Main Services			
		Slipping of Vessels			
<ul style="list-style-type: none"><li>Port Security / Safety Management</li></ul>	<ul style="list-style-type: none"><li>Waste Management</li></ul>	Afloat repairs		<b>Timber &amp; Fiber-Glass</b> <ul style="list-style-type: none"><li>Ship repair and commercial outfitting</li><li>Interior refurbishment</li><li>Machining &amp; installation of timber decking</li><li>Industrial &amp; marine paint services</li><li>Fiber-glassing</li><li>Wooden boat building</li><li>Building and office construction, renovations &amp; fit-outs</li></ul>	
<ul style="list-style-type: none"><li>Vessel Traffic Services and Anchorage</li></ul>	<ul style="list-style-type: none"><li>Container Cleaning</li></ul>	Heavy Industrial works			
<ul style="list-style-type: none"><li>Cruise Liner Services</li></ul>	<ul style="list-style-type: none"><li>Bunkering</li></ul>	<ul style="list-style-type: none"><li>Ship construction &amp; general heavy industry (steel &amp; aluminum)</li><li>Hull repairs (steel &amp; aluminum)</li><li>Industrial structural fabrication, heavy machinery welding</li></ul>			
<ul style="list-style-type: none"><li>Repair and Maintenance of Infrastructure</li></ul>	<ul style="list-style-type: none"><li>Pollution Prevention</li></ul>				
		Blasting & Painting		<b>Technical</b> <ul style="list-style-type: none"><li>Ship design &amp; calculations</li><li>Conducting inclining experiments</li><li>Compiling stability data</li><li>Hull ultrasonic (thickness) gauging</li></ul>	
		<ul style="list-style-type: none"><li>Grit/water blasting</li><li>Spray painting</li></ul>			
‘To be the maritime gateway in the Pacific region through facilitating waterborne transport, trade and commerce ’					




# Area Leased to Fiji Ports Terminal Ltd (FPTL)




'To be the maritime gateway in the Pacific region through facilitating waterborne transport, trade and commerce'


# Divestment of FPCL in 2015



- Fiji Ports Corporation Limited (FPCL) → 100% owned by the Government of Fiji until 5 November 2016




- Government divested 59% of the shares in FPCL at a value of more than FJ\$100 million



- Government signed the two key agreements **“Share Sale & Purchase Agreement”** and **“Shareholders Agreement”** on 5 November 2015




- 80% of the shares in FPCL will remain Fijian owned



Under the agreement Government will maintain 41% of the shares in FPCL, while FNPF will own 39% and Aitken Spence 20%.



- FPCL transfer all real estate to a Govt. holding company Asset Fiji Ltd. → Govt. lease the assets necessary for port operations to FPCL → Ownership of all land interests remain with Govt.






- As per the Shareholders Agreement FNPF is entitled to approx. 3 Directors and ASPLC is entitled to approx. 2 Directors to the Board while Govt. of Fiji shall be entitled to approx. 4 Directors to the Board.

# Current Status after Changes in 2013 & 2015





## FIJI PORTS CORPORATION LTD (FPCL)

	GOVT	41%
	FNPF	39%
	ASPLC	20%



## FIJI PORTS TERMINAL LIMITED (FPTL)

An associate company of FPCL that manages the Cargo Terminals in Suva and Lautoka ports.

	ASPLC	51%
	FPCL	49%



## FIJI SHIPS & HEAVY INDUSTRIES LTD (FSHIL)

A subsidiary of FPCL providing slipway and ship repair services and Heavy Industry work.

	FPCL	100%
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# Suva, Lautoka, Levuka and Malau Port Boundaries



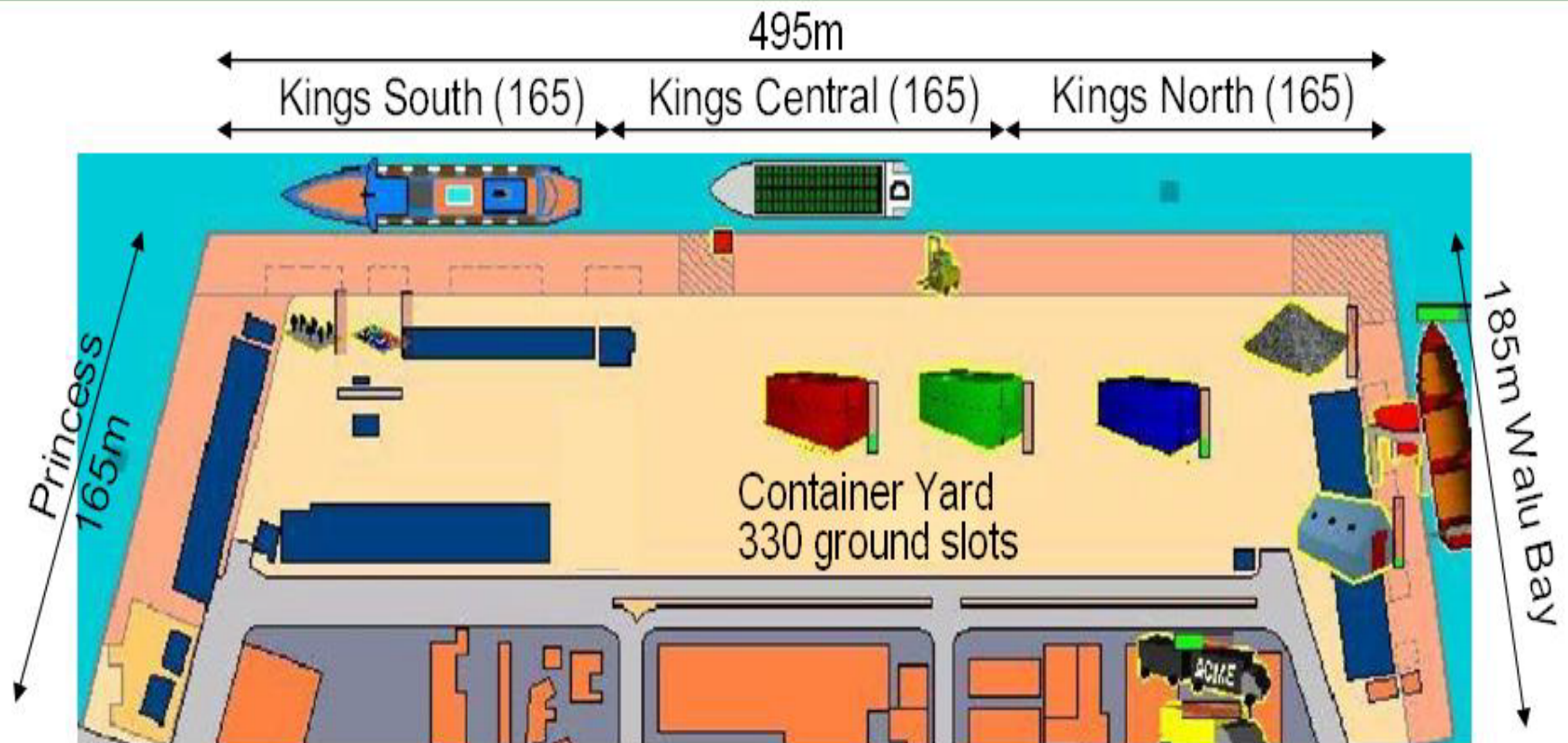
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# Infrastructure Challenges

- Ageing Facilities
- Shore Cranes

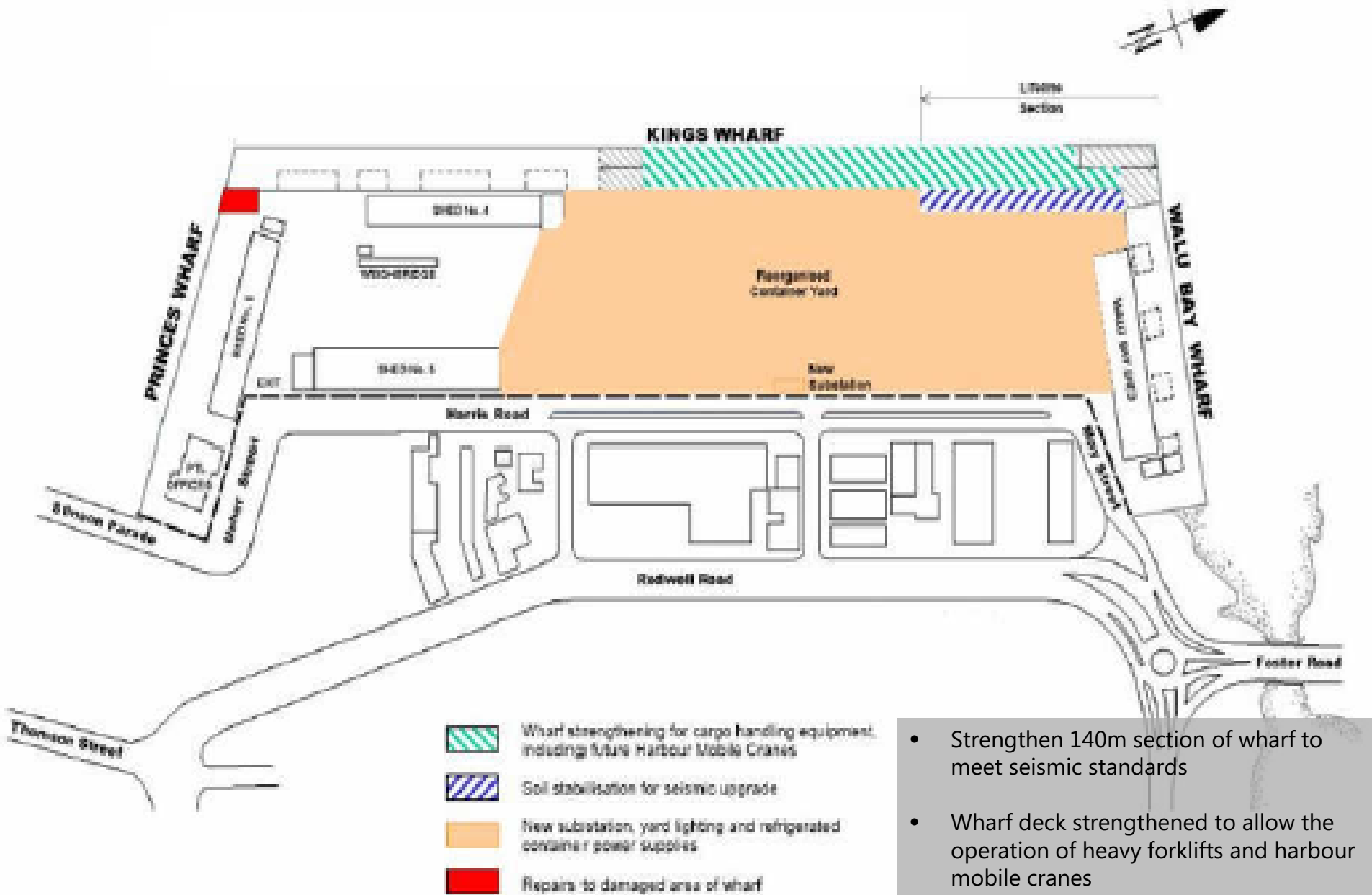


# Port of Suva Site Plan



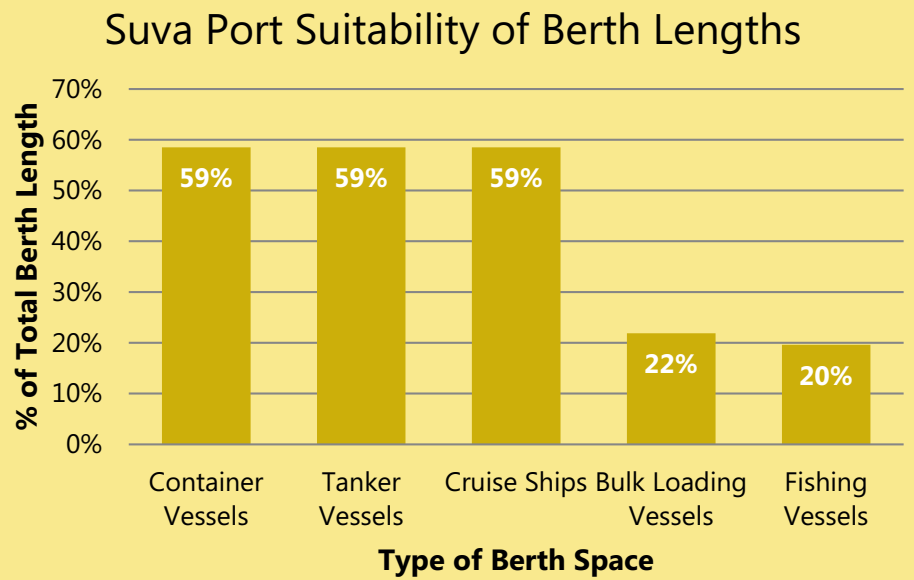
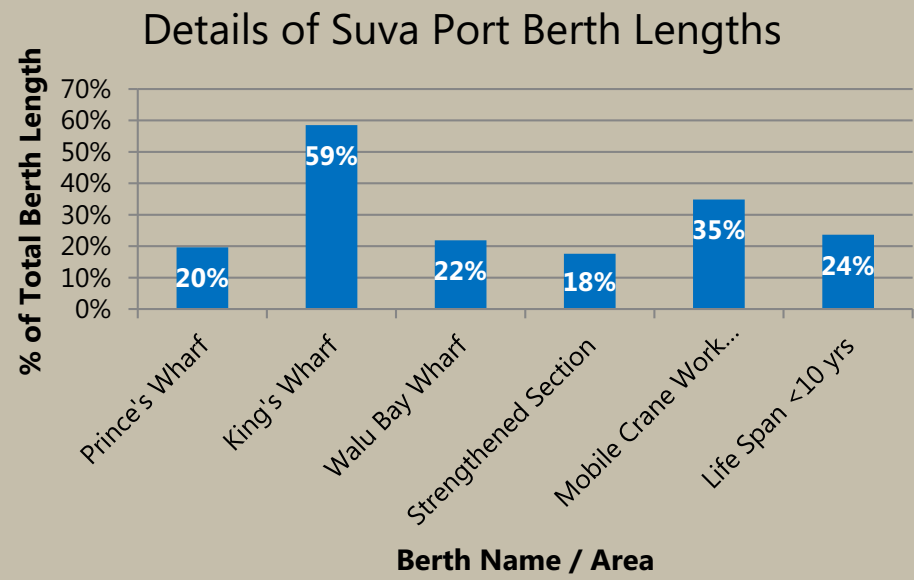
- 515m of berth length (excl. King's S & Princess)
- 3ha of yard space
  - capacity of 80,000 TEU for yard storage
  - capacity of >100,000 TEU for berth

# Port of Suva – Effective Operational Area



- Strengthen 140m section of wharf to meet seismic standards
- Wharf deck strengthened to allow the operation of heavy forklifts and harbour mobile cranes

# Port of Suva - Berth Details

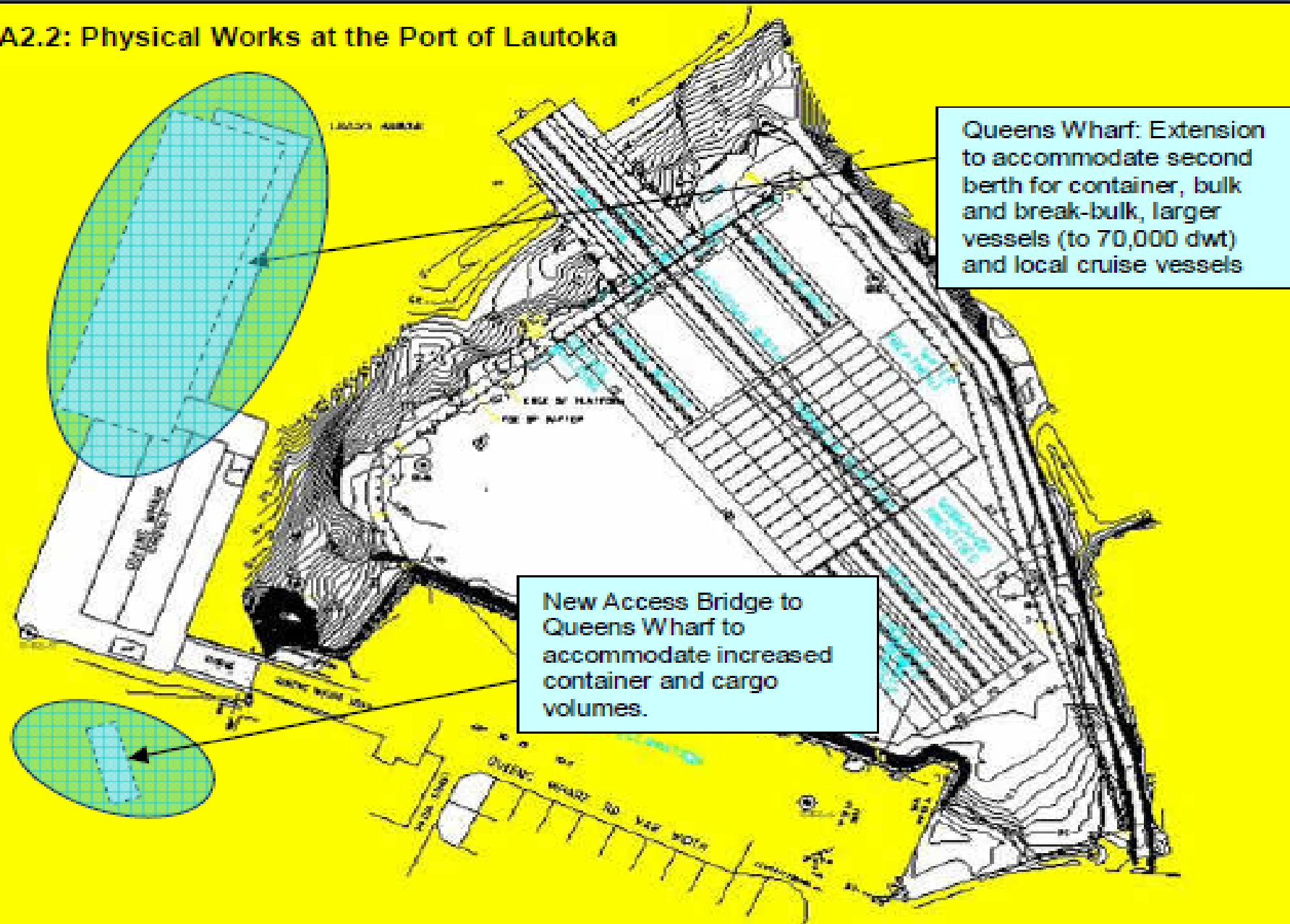


Berth Name	Berth Length (m)
Prince's Wharf	165
King's Wharf	492
Walu Bay Wharf	184
<b>Total Berth Length</b>	<b>841</b>
Strengthened Section	148
Mobile Crane Work Section	293
Life Span <10 yrs	199

Type of Berth Space	Berth Length (m)
Container Vessels	492
Tanker Vessels	492
Cruise Ships	492
Bulk Loading Vessels	184
Fishing Vessels	165

# Port of Lautoka Site Plan

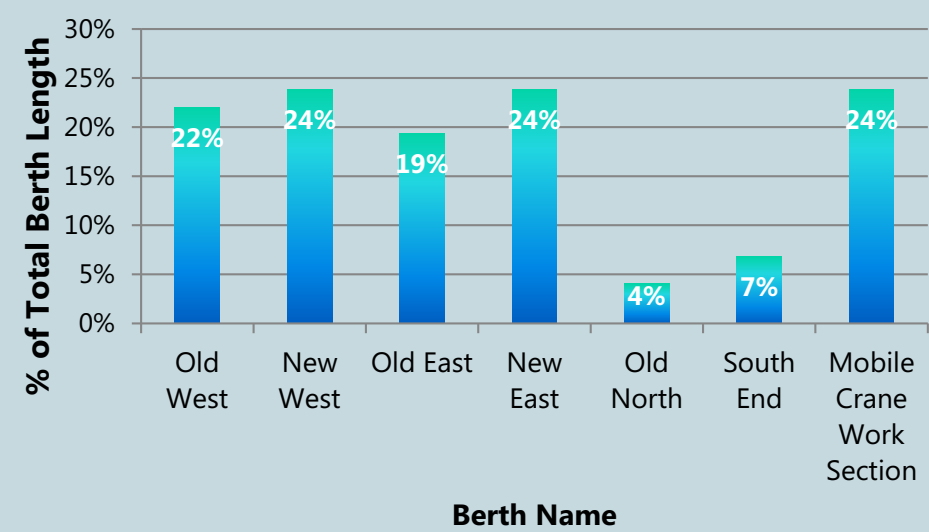
## A2.2: Physical Works at the Port of Lautoka



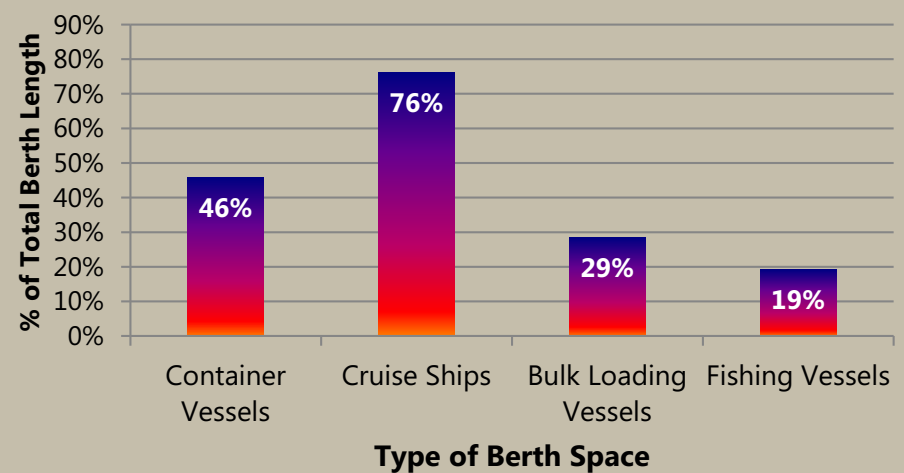
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# Port of Lautoka - Berth Details

Details of Lautoka Port Berth Lengths

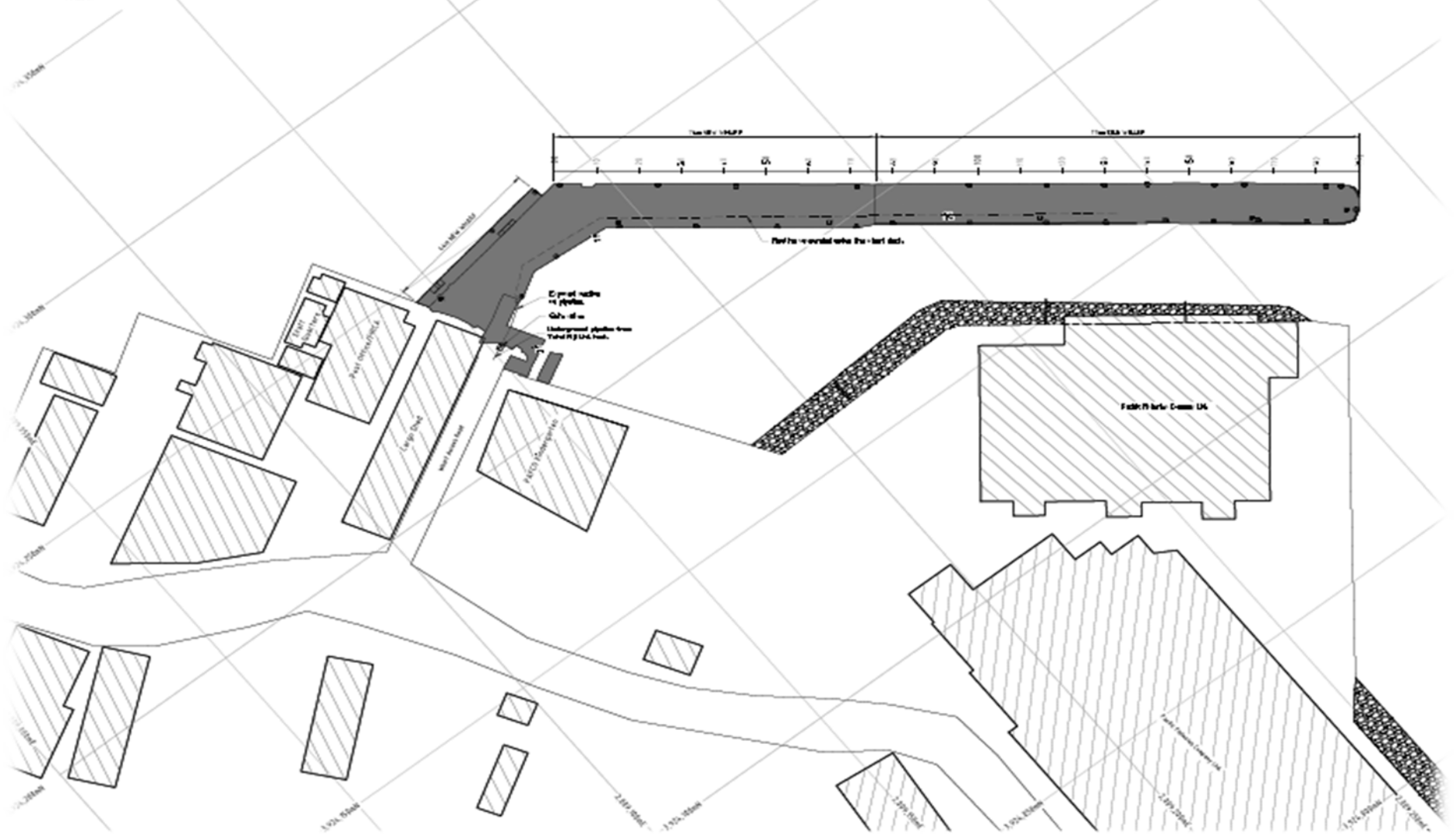


Lautoka Port Suitability of Berth Lengths



Berth Name	Berth Length (m)	Type of Berth Space	Berth Length (m)
Old West	142	Container Vessels	296
New West	154		
Old East	125	Cruise Ships	492
New East	154		
Old North	26	Bulk Loading Vessels	184
South End	44		
Mobile Crane Work Section	154	Fishing Vessels	125
Total Berth Length	645		

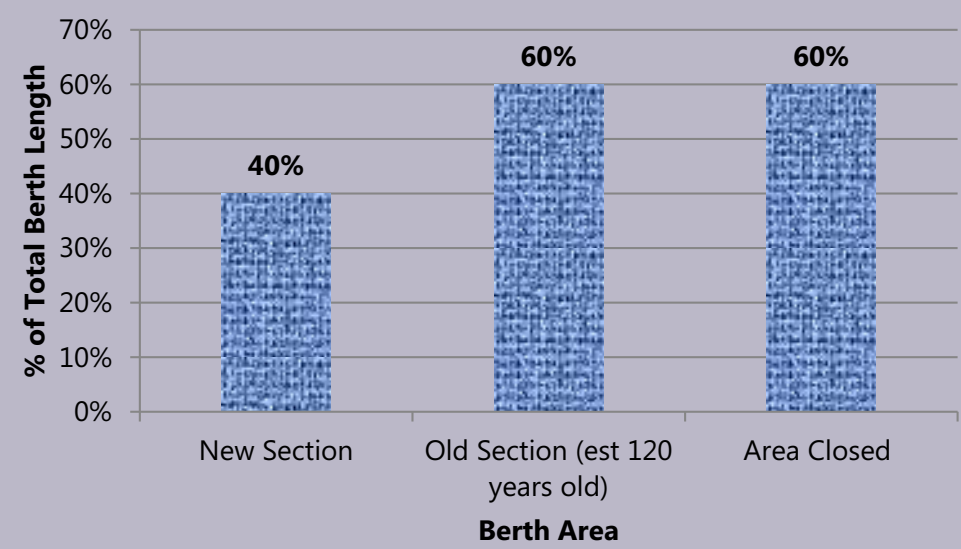




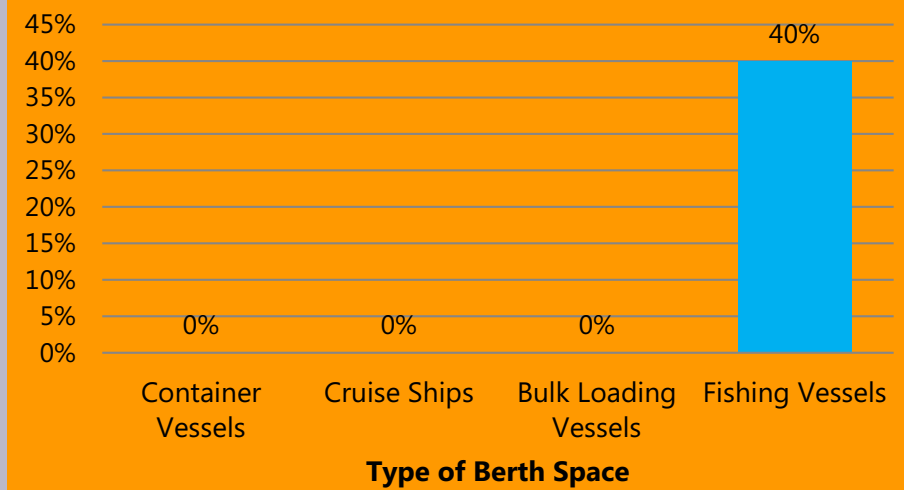
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# Port of Levuka - Berth Details

Details of Levuka Port Berth Lengths



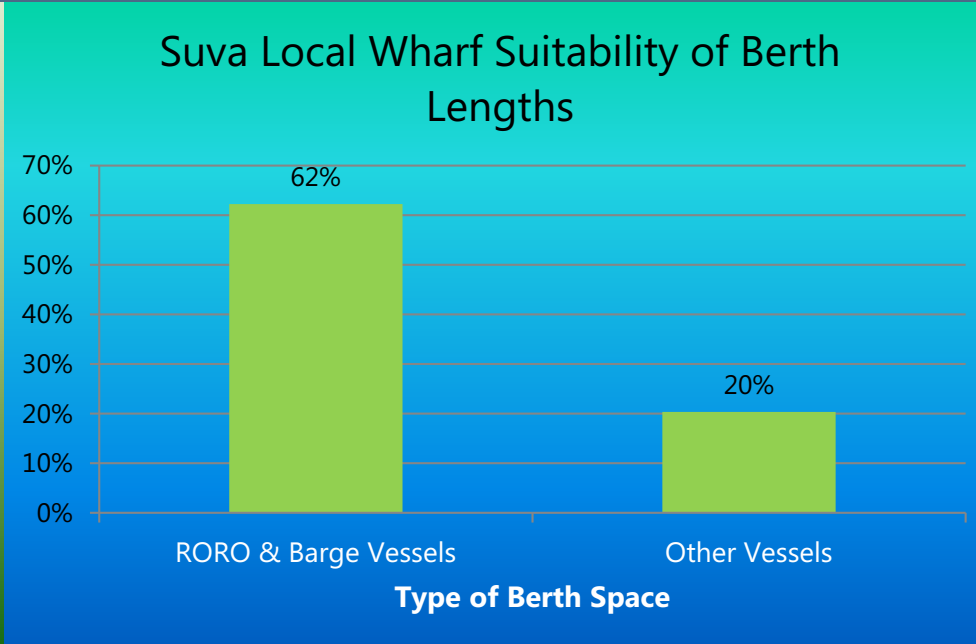
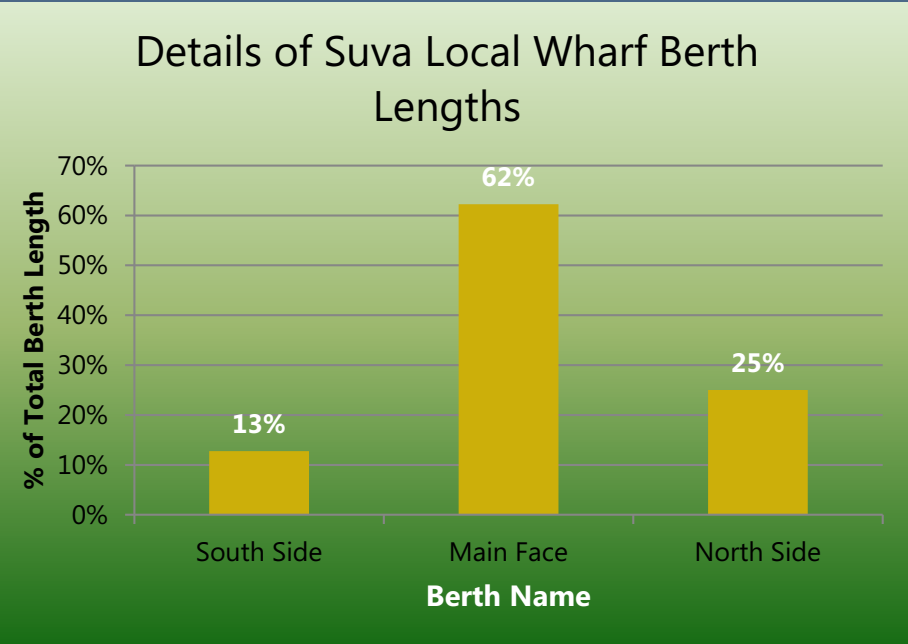
Levuka Port Suitability of Berth Lengths



Berth Name	Berth Length (m)
New Section	76
Old Section (est. 120 years old)	114
Area Closed	114
Total Berth Length	190

Type of Berth Space	Berth Length (m)
Container Vessels	0
Cruise Ships	0
Bulk Loading Vessels	0
Fishing Vessels	76

# Local Wharf Suva - Berth Details



Berth Name	Berth Length (m)
South Side	25
Main Face	122
North Side	49
Total Berth Length	196

Type of Berth Space	Berth Length (m)
RORO & Barge Vessels	122
Other Vessels	171



# Ageing Wharf Infrastructure – Damages in Port of Suva



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# Aging Wharf Infrastructure – Damages in Port of Lautoka



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# Ageing Wharf Infrastructure – Damages in Port of Levuka



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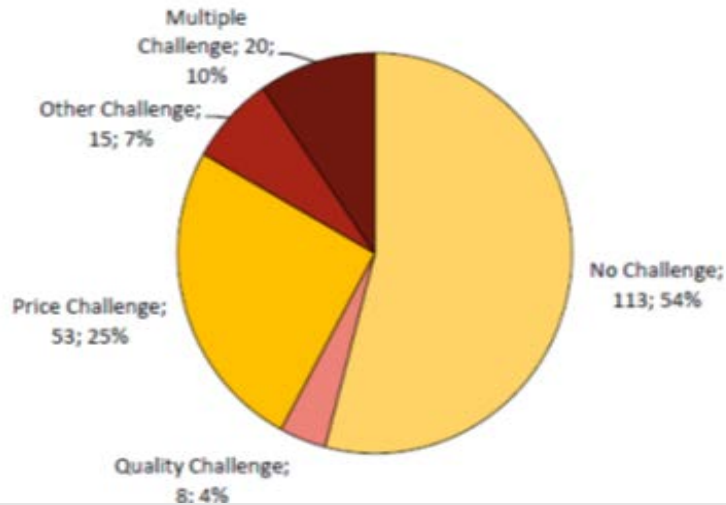
# More Challenges

- Pilotage
- Cargo Handling
- Passenger Services
- Environmental Management
- Towage
- Mooring
- Dredging
- Bunkering

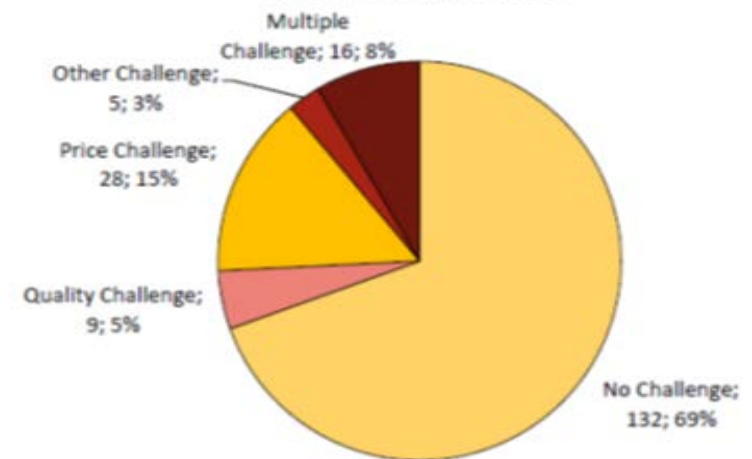


# Challenges

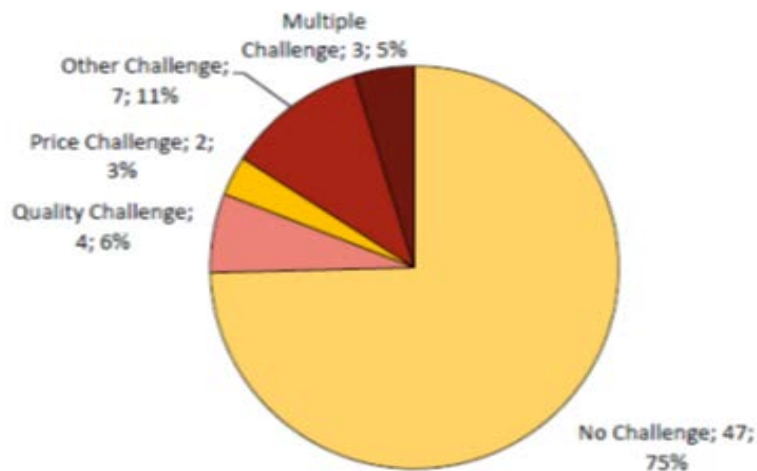
## Challenges regarding **PILOTAGE** services



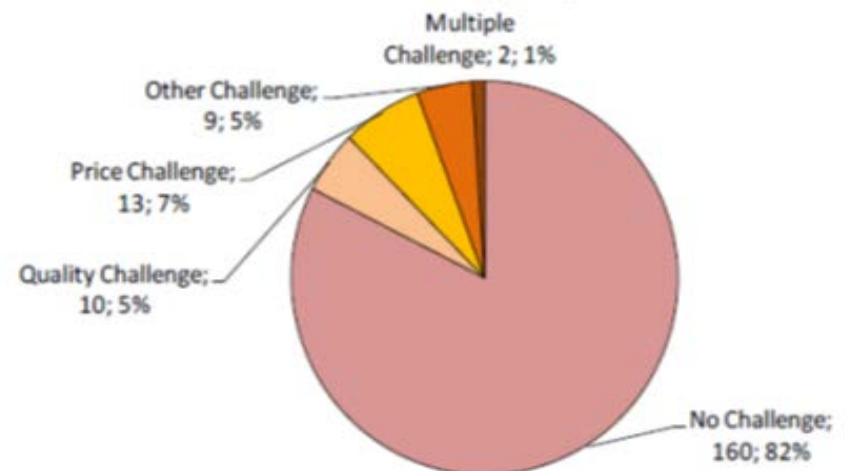
## Challenges regarding **CARGO HANDLING** services



## Problems regarding **PASSENGER** Services

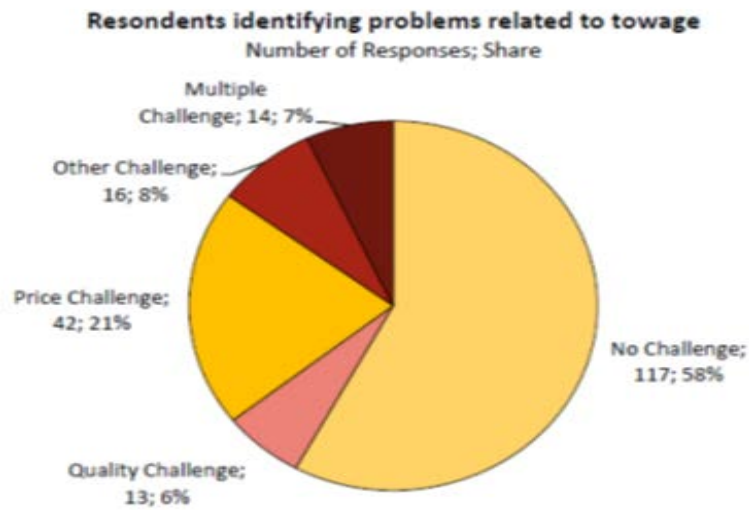


## Problems regarding **ENVIRONMENTAL** Services

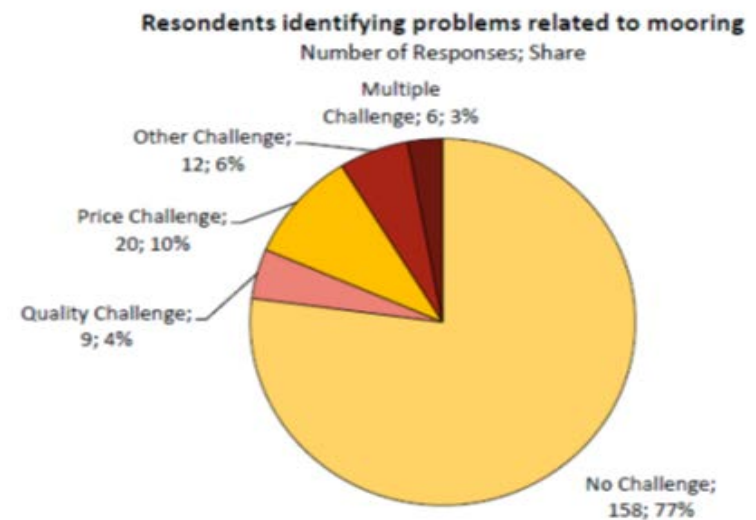


# Challenges cont.

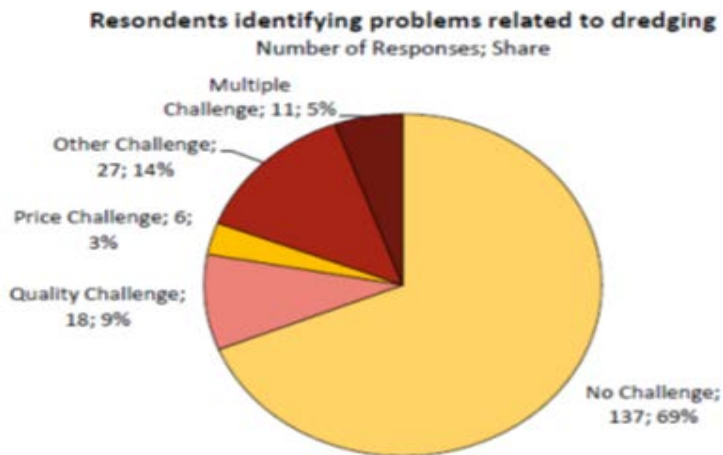
## Challenges regarding **TOWAGE** services



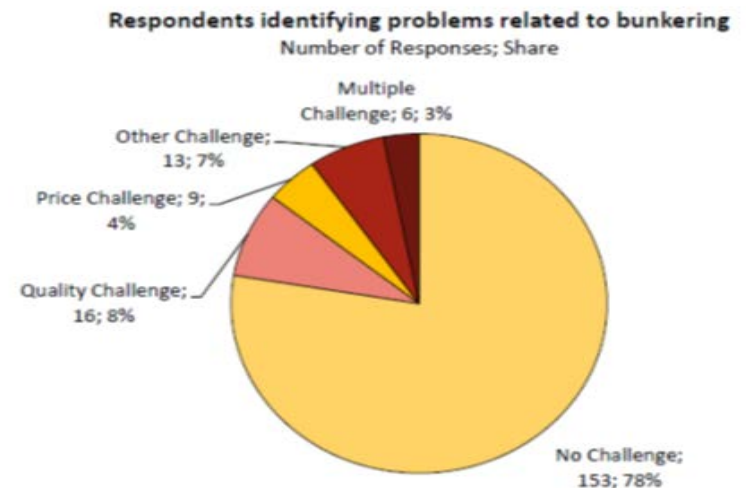
## Challenges regarding **MOORING** services



## Challenges regarding **DREDGING** services – Shipping lines and Terminal operators



## Challenges regarding **BUNKERING** services





# FPCL – Projects Implemented to Address Key Issues

## Pollution Prevention



*Launch of oil pollution boat -  
Approx. Cost \$80 k*

## Social Obligations



*Lautoka waiting shed-  
Approx. Cost \$450 k*

08/08/2013 17:03

## Port Development



*Local wharf revamp - Project study  
Approx. Cost \$80k*

## Derelict Vessel & Wreck Removal



*Removal  
Approx. Cost \$150 k (ongoing)*

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# Operational Challenges

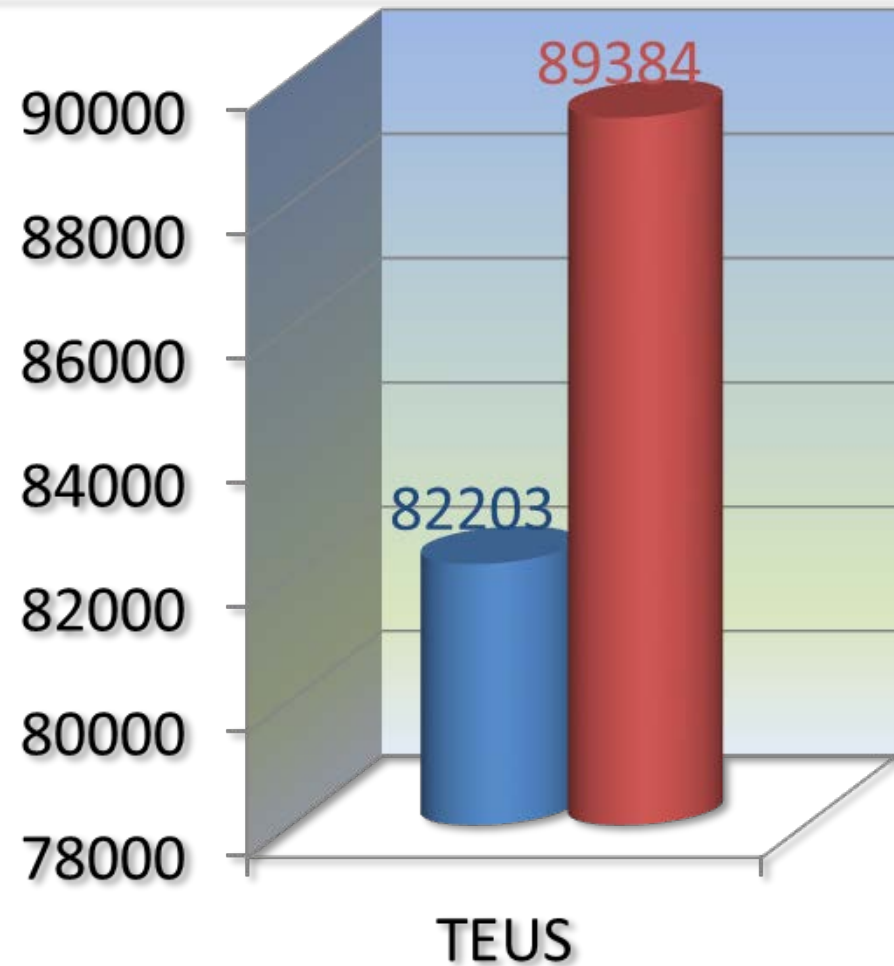
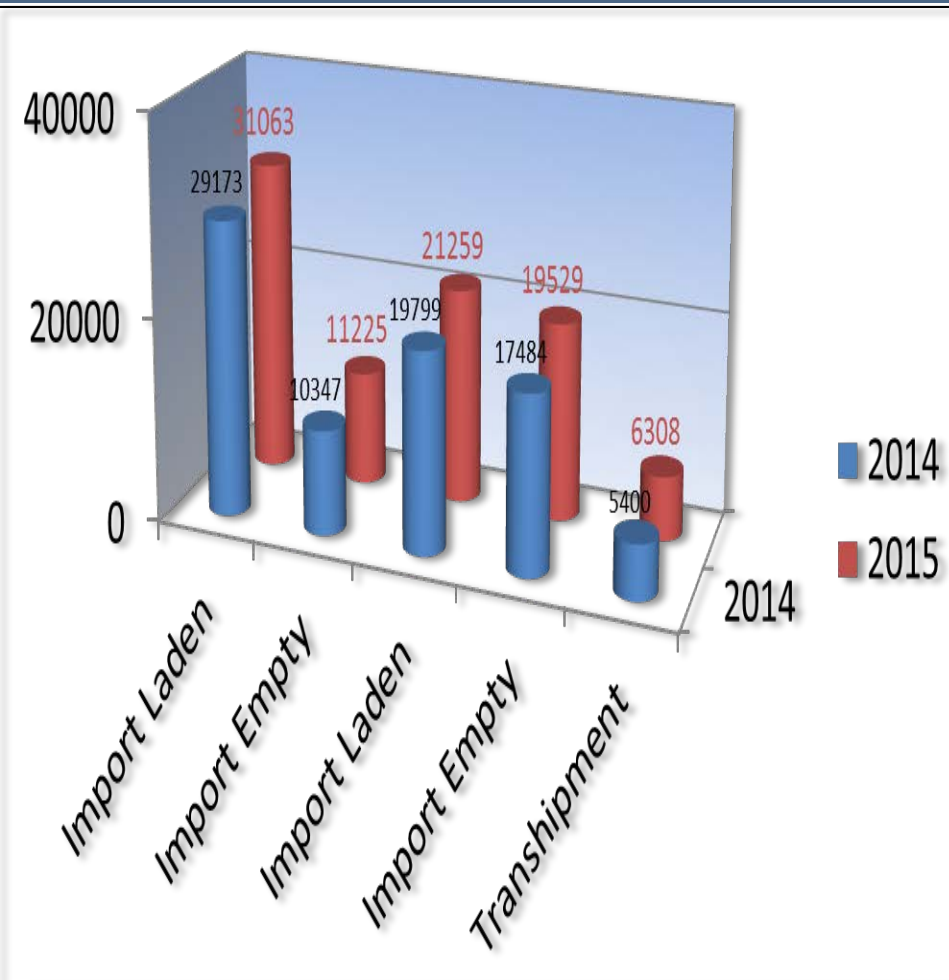
- Capacity Constrains
- Port Efficiency
- Surcharges
- Connectivity
- Transshipment

# FPCL Vessel and Cargo Statistics

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
TOTAL FOREIGN VESSELS															
No of Vessels	1123	1597	1369	1183	1122	1172	1317	1477	1516	1386	1530	1670	1491	1823	
GRT	6292420	8875667	8082666	9187726	9443770	10483863	11572969	11894243	12456706	11578741	12149831	14836412	16155006	14789026	
100 GRT hrs	1950850	2482903	2389139	2236179	2789262	2312745	2491644	1913972	2464198	2762656		3332658	3044605	3312148	
CARGO VESSELS															
No of Vessels	606	785	739	782	785	784	852	865	836	739	719	776	766	768	
GRT	5459068	7469712	7005575	8280322	8151918	8361785	9368207	9936397	9922208	9180823	8636293	10011330	10829814	9564012	
100 GRT hrs	1466592	1924167	1847530	1960055	2212885	1924668	2127985	1631796	1941675	2288756	2313947	2380853	2713899	2601856	
FOREIGN VESSELS															
Cruise Liners															
Nos:	29	26	22	21	30	36	37	38	44	35	50	57	83	64	
PAX									83600	66500	95000	108300	161500	158000	
GRT	552949	1019849	70097	659572	1046280	1852334	1733168	1635126	2179998	2046266	2738021	4081502	5469323	4591624	
100GRT Hrs	56032	127146	77755	73110	426112	199384	144445	178353	205933	199963	455770	408739	544405	457182	
Dry Bulk															
Nos:	41	49	43	46	42	39	41	36	33	32	34	13	32	36	
GRT	594111	782068	723794	842061	773474	682252	815656	6688895	550980	632883	598663	227918	726282	854988	
100GRT Hrs	461299	591824	545518	662841	494061	336766	727700	173890	420444	503129	609103	275094	592880	882922	
Liquid Bulk															
Nos:	210	263	235	226	215	249	284	287	289	279	277	259	281	275	
GRT	1526550	2063327	2111667	25522876	2471412	2492679	3155229	2997576	3056702	3209885	2991653	2952970	3219842	2998814	
100GRT Hrs	292593	377462	376680	310496	487201	360113	378799	432505	434251	589317	396315	539524	508466	501483	
LOLO															
Nos:	282	377	340	423	467	441	474	486	465	384	367	450	399	372	
GRT	2477580	3247077	2853334	3797435	4026121	4373752	4571811	5105417	5181466	4497951	4290541	5615101	4891699	3931323	
100GRT Hrs	577476	738345	641787	822604	1063778	864408	906834	954811	1086019	1200860		1375025	1078971	939666	
LOLO/RORO															
Nos:	63	87	111	76	52	51	47	45	41	42	38	41	40	67	
GRT	586031	1006040	1090104	850755	679910	659290	707767	766719	727517	741014	652431	724081	705930	939820	
100GRT Hrs	118953	197536	288475	137741	149554	103943	103983	86553	108381	105804	100574	128211	82402	178952	
Car Carrier															
Nos:	10	9	10	11	9	7	6	9	8	2	3	12	14	18	
GRT	274796	371200	226676	267195	201001	158368	135744	397890	405543	99090	103005	490251	654139	839067	
100GRT Hrs	16271	19000	14868	26373	18281	11804	10669	22045	23788	4487	7095	62131	66338	98833	
Fishing															
Nos:	414	696	522	325	252	312	368	489	589	561	706	718	565	923	
GRT	137751	213753	197533	128205	111556	149581	99545	136466	187645	166260	564270	200130	225228	242229	
100GRT Hrs	290366	382781	344839	158219	109949	77093	54176	67526	100723	131313	148113	127569	92274	66994	
Others															
Nos:	74	90	86	55	55	37	60	87	47	51	54	120	77	68	
GRT	142652	172353	179461	119627	134016	115607	354049	186154	166855	182574	210747	544459	262563	391161	
100GRT Hrs	137860	48809	119017	44795	40326	110566	165038	36297	215867	142624	129993	416365	78869	186116	
CARGO THROUGHPUT															
Non Containerized															
Import	141053	165190	145416	114526	116342	72111	46195	57526	53414	67221	84322	138442	24353	35,941	
Export	18793	13074	8808	11758	8808	14017	6548	10649	7638	7998	164119	3321	4922		
Total	159846	178264	156060	126284	125150	86128	52743	65164	62472	75614	92320	302561	27674	40,863	
Containerized															
Import	660279	742965	930480	914330	947146	962157	1004013	898347	959557	992918	1145013	1122264	1178887	947575	
Export	435718	412041	530301	573627	604979	788687	745382	624109	788769	816526	823330	940959	959347	518400	
Total	1095997	1155006	1460781	1487957	1552125	1750844	1749395	1540456	1748326	1809444	1968343	2063223	2138234	1465975	
Dry Bulk															
Import	193499	200701	214675	338267	320418	301206	285207	263503	267159	225481	261938	787948	314175	374887	
Export	510055	529410	494760	504810	428717	383480	489137	344077	306822	354182	317938	253364	438706	268289	
Total	703554	730111	709435	843077	749135	689186	774344	607580	573981	579663	579876	1041312	752881	643176	
Liquid Bulk															
Import	567483	589249	526860	623137	587995	503779	590044	566656	624009	642974	615117	584960	735094	734638	
Export	258770	304927	228063	217834	255421	221151	211480	213596	189809	181246	185879	186906	156147	186509	
Total	826253	894176	754923	840971	843416	814930	801524	780252	813818	824220	800996	771866	891241	921147	
MV Bulk															
Import													159606	192325	
Export													6650	7462	
Total													166256	199787	
Total Import								1,786,032	1,904,139	1,928,594	2,106,390	2,633,614	2,252,509	2,093,041	
Total Export								1,207,420	1,294,458	1,360,347	1,335,145	1,545,348	1,557,521	978,120	
Total Local								225,476	245,590	239,766	265,802	226,700	183,757	159,188	
Total Import & Export								3,218,928	3,444,187	3,528,707	3,707,337	4,405,662	3,993,787	3,230,349	
LOCAL WHARF															
Imports									100933	103524	125301	81494	70385	70720	
Exports									144657	136242	140501	145206	113372	88468	
Total									245590	239766	265802	226700	183757	159188	
PORT USER LICENSE															
No of Port Users								310	296	381	368	359	370	408	
Total PUL Revenue								86113	122663	147270	160943	162265	180571	217762	

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# Cargo Volumes 2014 – Aug 2015

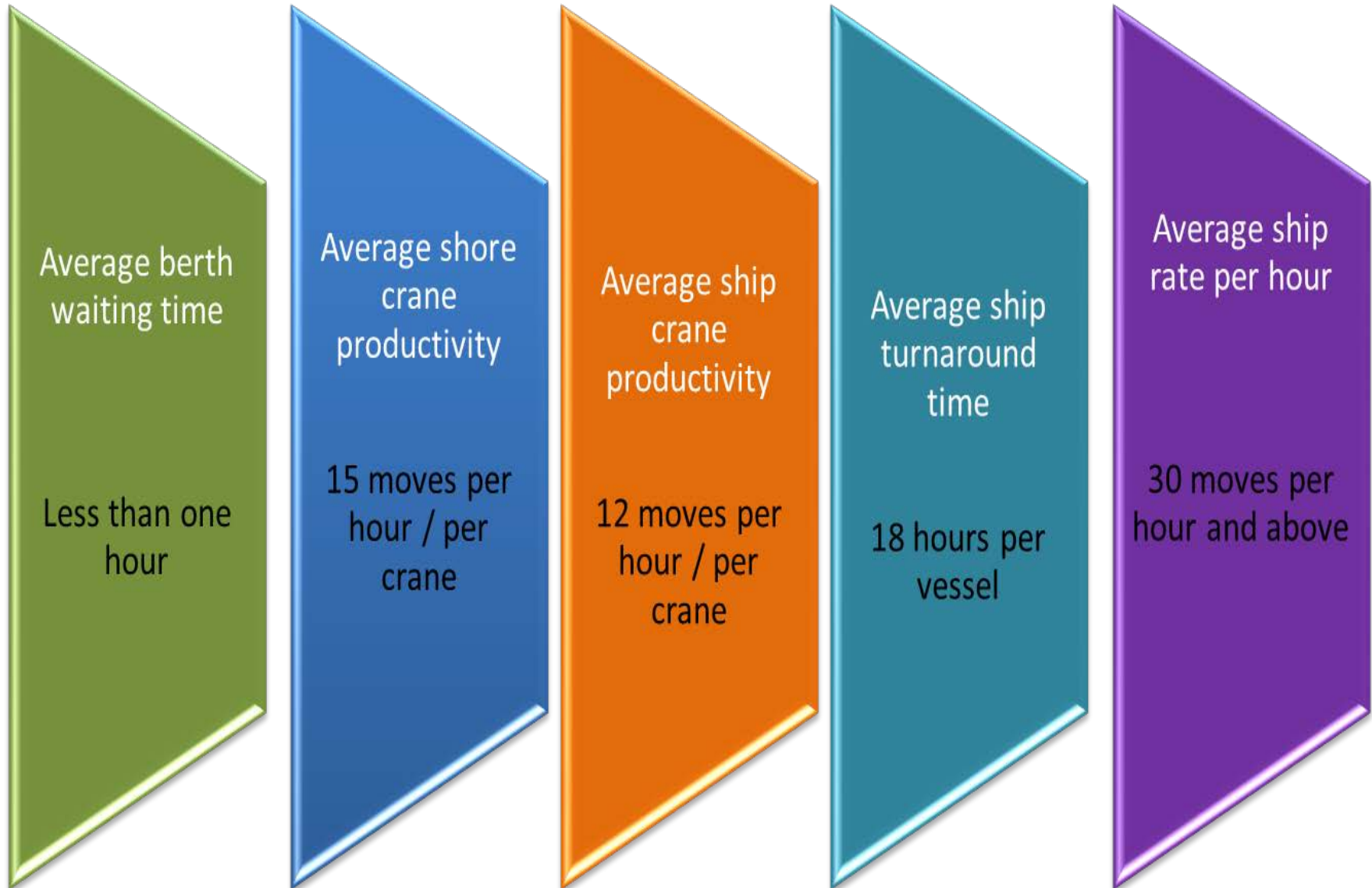


**Volume increase – 8.7%**

Imports - laden & empty - 7.0%  
 Exports - laden & empty - 9.4%  
 Transshipment - 16.8%



# FPTL's Continuous Performance Improvement





# Conventional Cargo Throughput – 2014 vs 2015 – Jan To Aug

Port of Suva		
Jan - Aug	Dry Bulk (Tons)	Vehicles (Units)
2014	173044	5228
2015	186755	5751
Port of Lautoka		
2014	13828	469
2015	24515	1580
Total		
2014	186872	5697
2015	211270	7331

28%



Up by  
13%



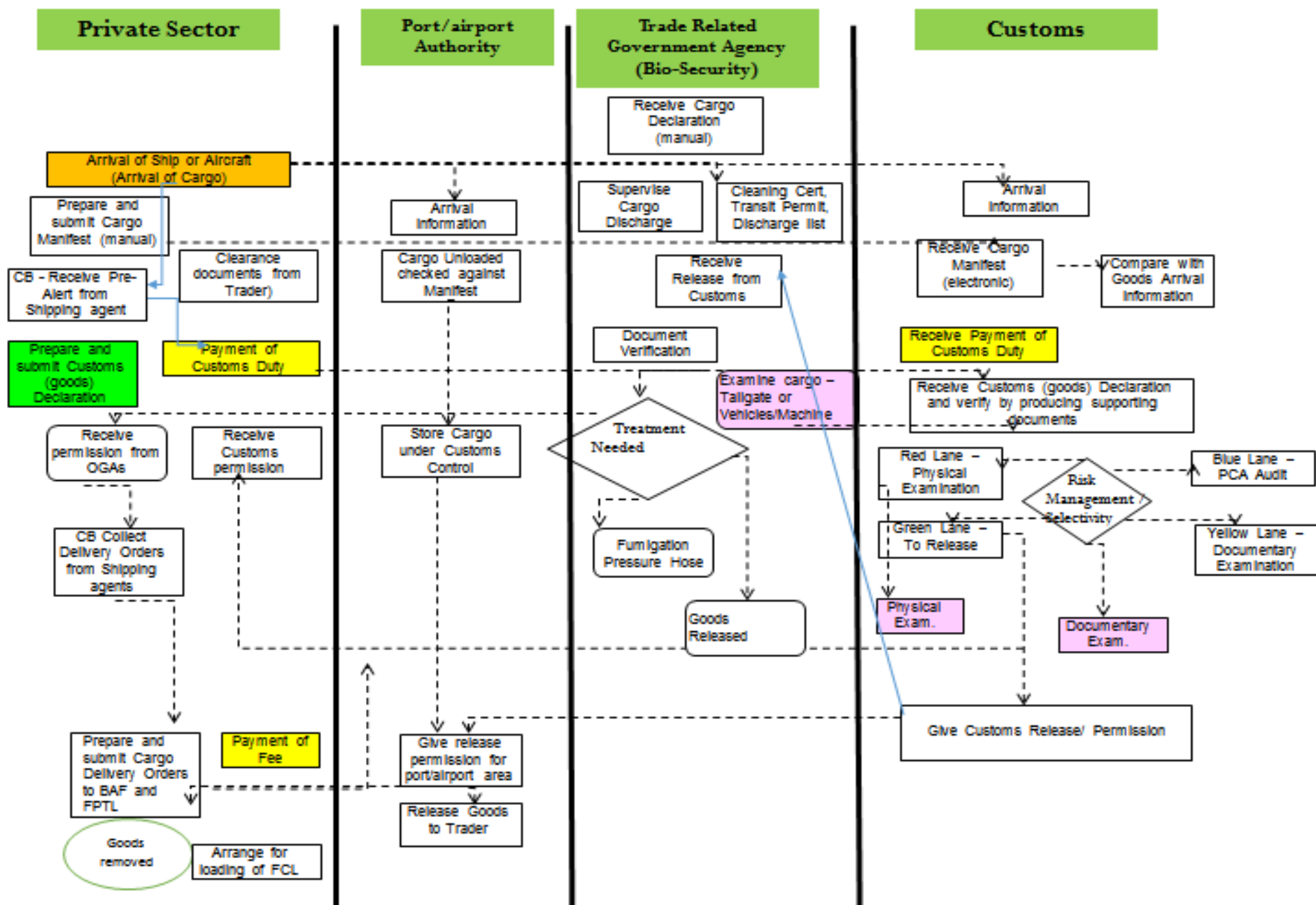
Dry Bulk Commodities –

- Wheat
- Clinker
- Fertilizer



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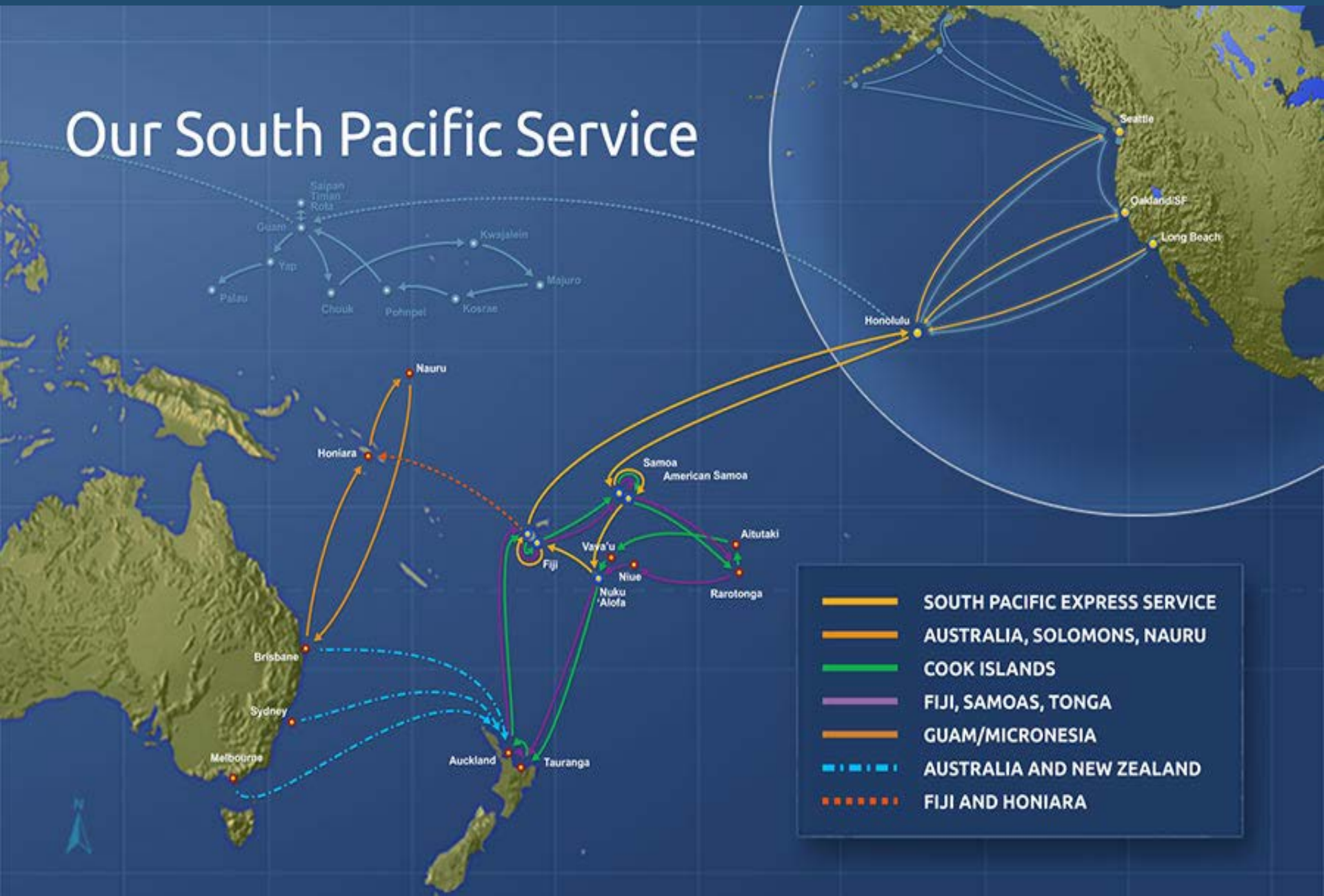
# Time Release Study (TRS)





# Connectivity - MATSON South Pacific Service

## Our South Pacific Service

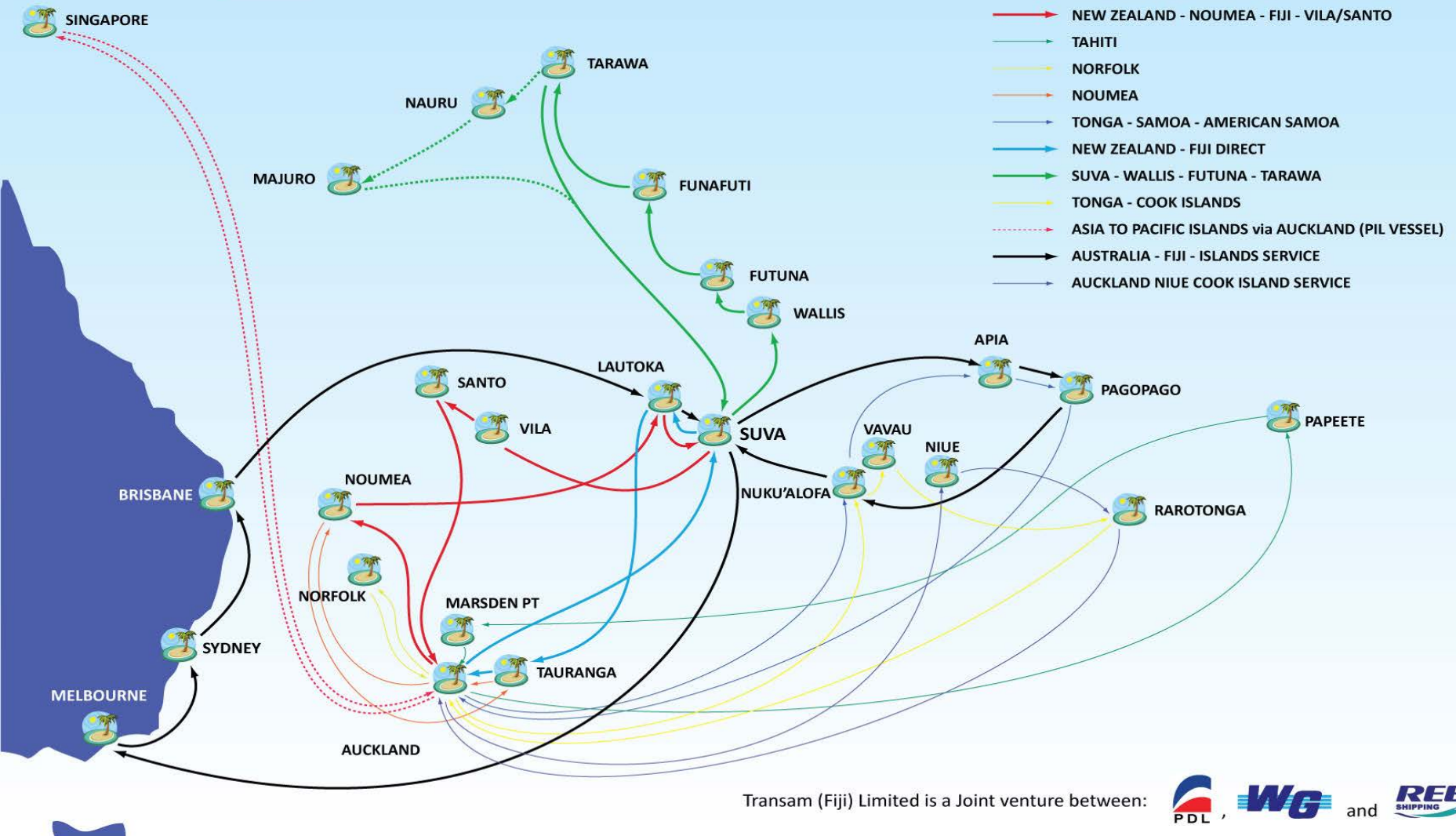


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# Connectivity - TRANSAM South Pacific Service



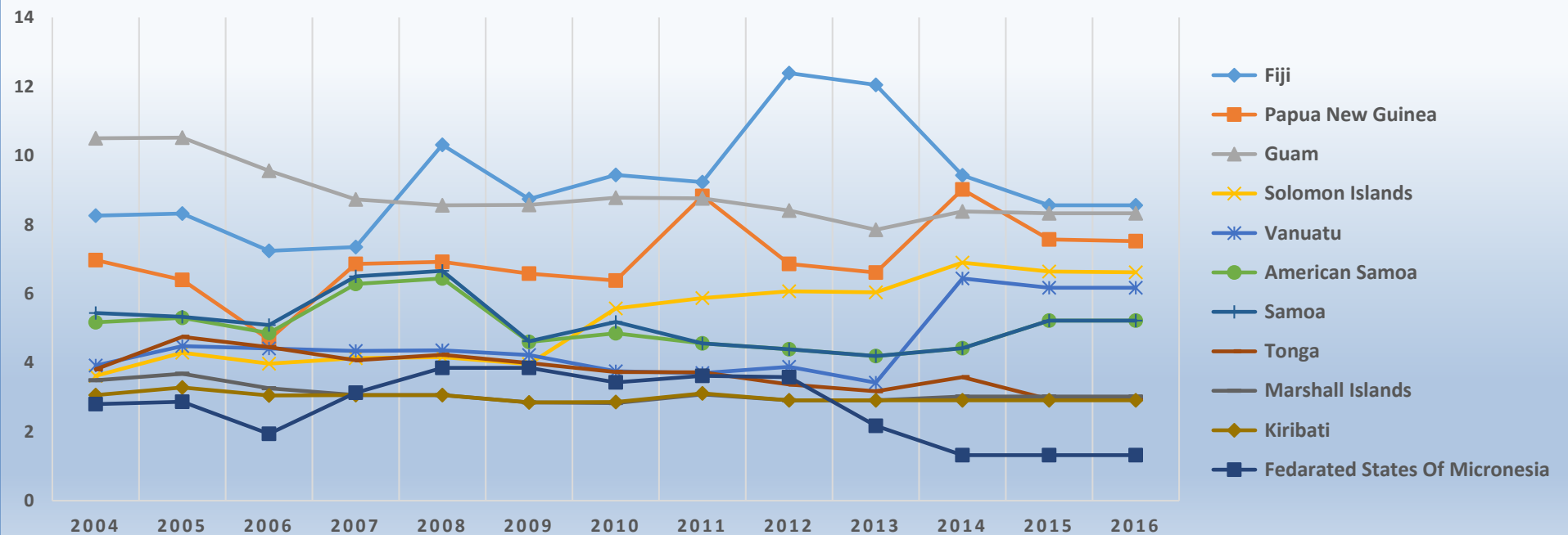
## Links to the Pacific



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# Liner Connectivity Index

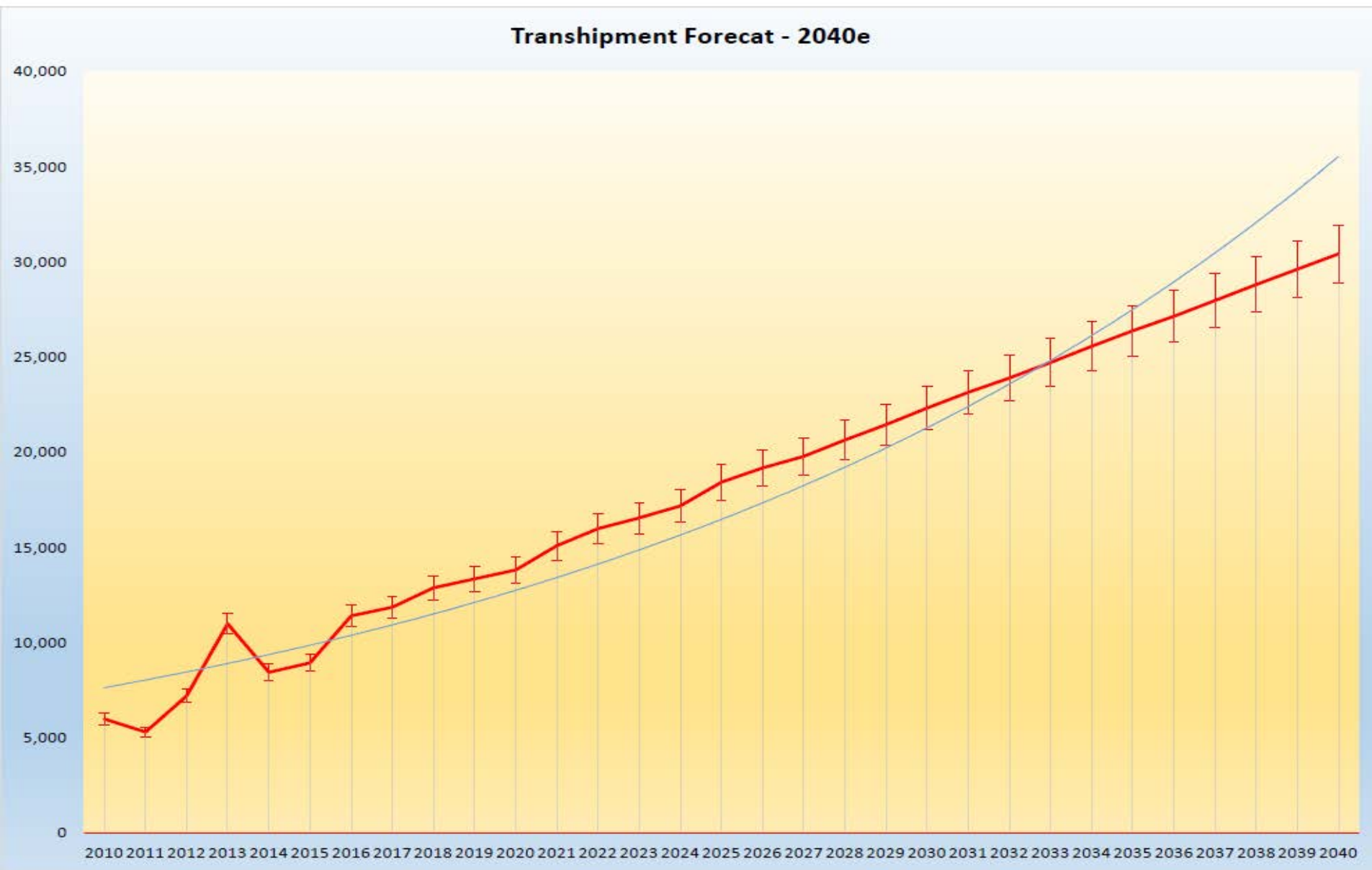
## REGIONAL PERSPECTIVE – LINEAR CONNECTIVITY INDEX



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# Transshipment Forecast for Fiji



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# Tariff Review 2015

- Key Income Streams
- Fiji Commerce Commission
- Fiji Ports Compliance Framework (Proposed)

# Major Income Categories

## Marine Service

- ❑ Charges relating to various marine related services, e.g. Pilotage, tugs, port dues, linesman & lines boat services etc.
- ❑ Main charge is Marine Service Charge (MSC), which is a composite rate for in-port pilotage, port dues, linesman etc.
- ❑ Some of the services involved are outsourced or subcontracted
- ❑ MSC tariff rate increased by 30% in the amended 2015 tariff, prior adjustment was in 2009.

## Dockage

- ❑ Charges levied for vessels being berthed alongside the wharf
- ❑ Based on the numbers of hours berthed plus the vessel GRT (size)
- ❑ Tariff rate increased by 40% in 2015 for all vessels excluding cruise liners. Cruise liners rate increased by 125%. Prior adjustment was in 2001.
- ❑ Due to improving port efficiency, and reducing hours of berthage, some reduction in Dockage income was noted in 2013 and 2014.

## Wharfage

- ❑ A charge on all goods that are loaded, unloaded or transhipped within the port
- ❑ This charge is based on the cargo volumes, and levied either per container (both MTs & Full), or for bulk cargo, per MT or cbm.
- ❑ Tariff rate increased by 40% in 2015. Prior adjustment was in 2001.

## Other

- ❑ Includes various charges such as rental income, commission, dividend, incinerator charge, security levy, sundry income etc.

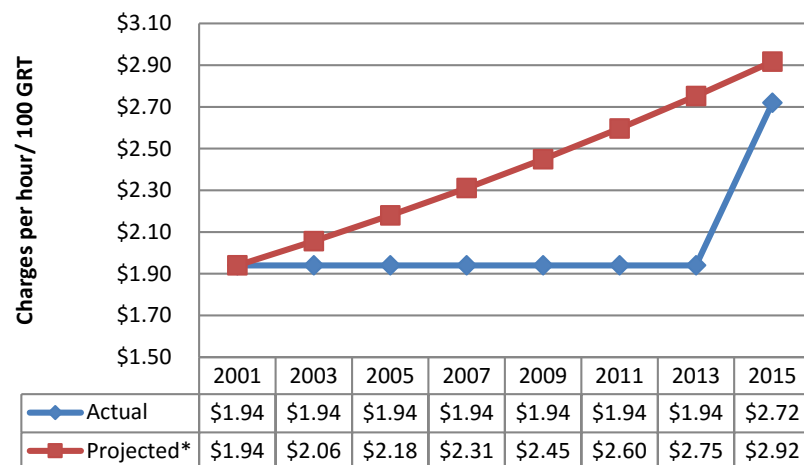
# Tariff Review - Key Charges and Impact

CHARGES	RATIONALE	RATE	IMPACT
Marine Service Charges	Provision of marine services such as pilotage, etc.	0.286 x GRT + \$1,048	On Ship
Dockage	Cost for berthing alongside Wharf	\$2.72 per 100GRT/hour (Cargo vessels)	On Ship
Wharfage	To defray costs of maintaining cargo handling areas	20FT Container (\$70) \$24.50 Consignee	On Importers / Exporters
		\$45.50 Ship/agent	On Ship
Other Misc. Charge (incinerator, Security, etc. )	Various	Various	On Ship (predominantly)

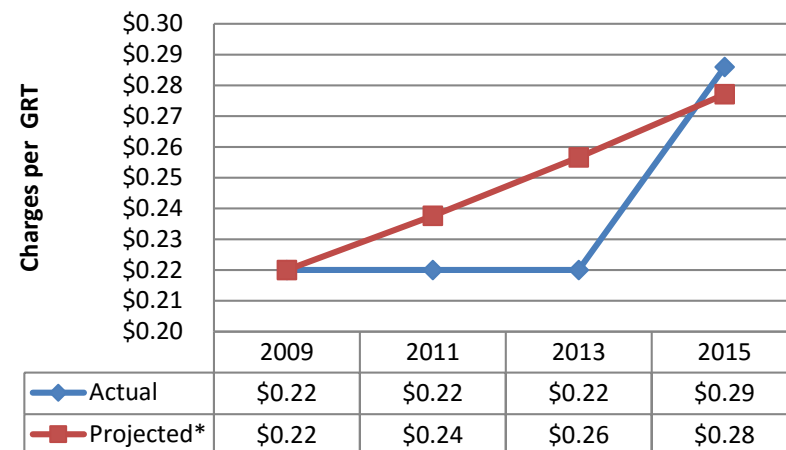


# Analysis of Recent Tariff Review

## Dockage Tariffs Rates (Cargo Vessels)



## MSC Tariffs Rates



## Wharfage Tariffs Rates (20 FT Cont)



Note:

**Dockage and Wharfage Charges:**  
Projected at 6% every 2 years

**MSC :** Projected at 8% every 2 years

# Dredging and Reclamation

- Comprehensive Dredging Plan

# Dredging plans for Ports of Entry *from Ronald Sue, Port Engineer, FPCL.*

FIJI Ports Terminal Ltd (FPCL) is investigating the development of a scheduled dredging plan that meets PIANC (World Association for Waterborne Transport Infrastructure) standards for criteria such as dredge depth and navigational channel design, with consultants undertaking the initial scoping exercise for the Ports of Suva and Lautoka.

The harbours of the international Ports of Entry, Suva and Lautoka, are subject to silt buildup on the sea floor. The



*The Port of Lautoka is subject to silt build-up.*

seasonal storms and cyclones, to which Viti Levu is prone, sees large quantities of river silt, sand and mud being washed down stream and into the harbour. It is essential that the international

vessels using the ports' facilities do so safely and with sufficient draft.

Dredging the harbour floors is also an issue for the international Ports of Entry in many of the smaller Pacific Island Countries and Territories, who often find the cost of the exercise is prohibitive.

Arising out of the Pacific Maritime Transport Association (PMTA) 39th conference held in Niue, October 2014, a regional scoping study is underway to assess the feasibility of assisting PMTA member nations in sharing the cost of harbour dredging.

# Dredging Plan developed by CARDNO Australia

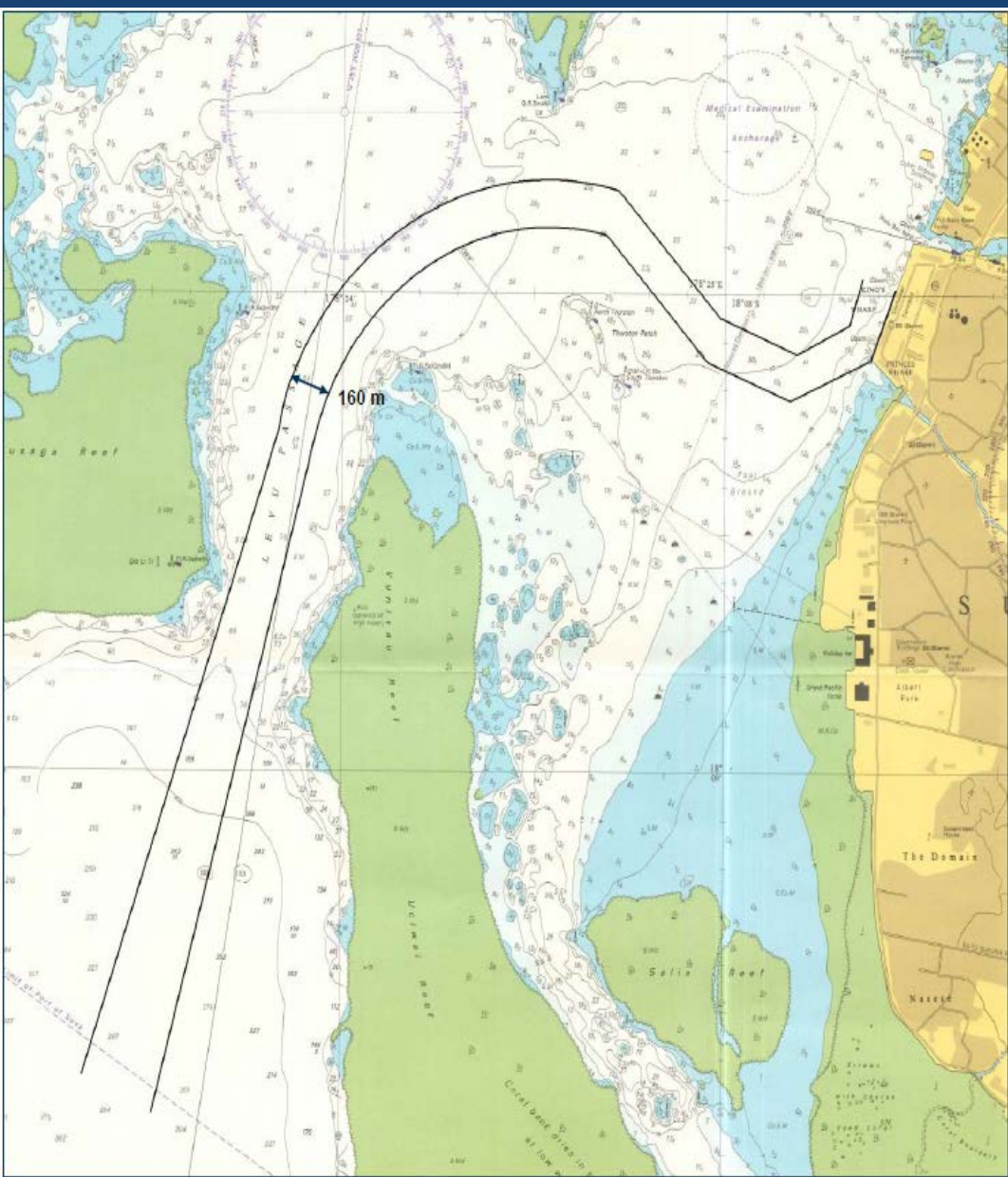


Figure 4-3 Indicative only - Port of Suva two-way concept channel design

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## Immediate dredge requirements estimation

Port	Dredge Quantity
Lautoka	~260,000 m <sup>3</sup>
Suva	~2,000 m <sup>3</sup>

## Annual Maintenance Dredging Estimation

Port	Annual Maintenance Dredging Allowance
Lautoka	~20,000 m <sup>3</sup>
Suva	~2,000 m <sup>3</sup>

## Budget Estimates for Immediate Dredge and Survey Requirements

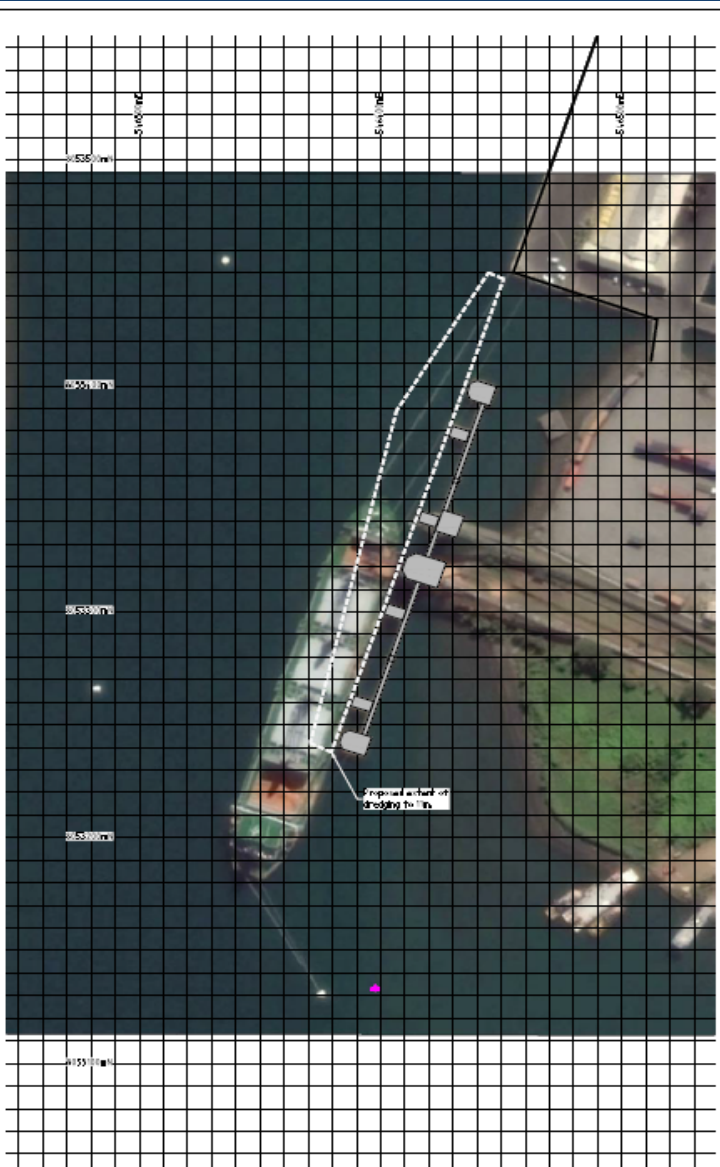
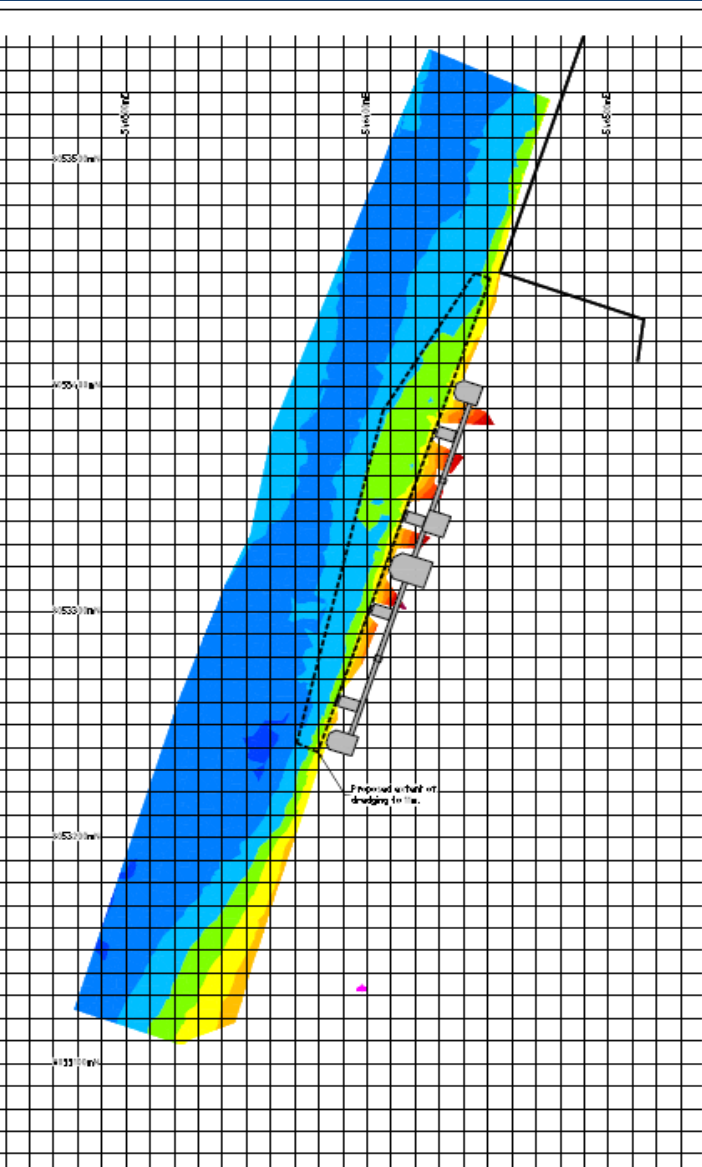
Equipment / Service	Mobilisation (FJD\$)	Demobilisation	Rate (/m <sup>3</sup> or /day)	Total (max)
CSD	FJD\$500,000 - 1,000,000	FJD\$200,000 – 1,000,000	FJD\$11/m <sup>3</sup> FJD\$13/m <sup>3</sup> (if booster req'd)	FJD\$5,406,000
TSHD	FJD\$1,250,000	FJD\$1,100,000	FJD\$85,000/day	FJD\$6,175,000
Hydrographic Survey (pre & post dredge)			~FJD\$9,500/day	FJD\$230,000

## Maintenance Provisions and Recommended Timing

Equipment / Service	Annual Costs (FJD\$)	3 Yearly Costs (FJD\$)
Dredging (TSHD)		FJD\$3,455,000
Hydrographic Survey (int'l)	FJD\$185,000	

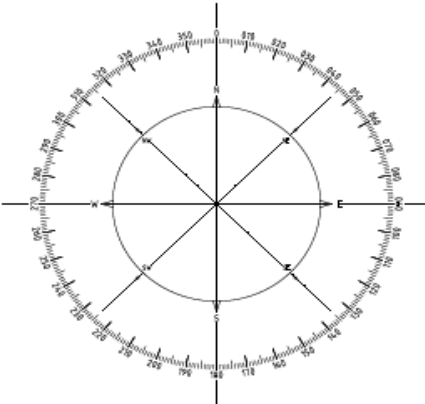


# Lautoka Woodchip Wharf Dredging Project



- NOTES**
- 1. Schematic diagram only. Not to be used for navigation etc.
  - 2. Coordinates are UTM, WGS 84 Zone 48S.
  - 3. Coordinate grid shown at 10m spacing.
  - 4. Bathymetric contours December 2014. To Lowest Astronomical Tide (LAT), based on French BlueChart Pacific. < 5m depths shown. The Port Lautoka to establish a land based reference station (STN-A) adjacent to the survey area.
  - 5. Soundings read from L1150 single beam 200kHz (10 degrees divergence), 1 second ping. Swathline spacing of vessel run, parallel to wharf face, is 1m. 1 second sounding interval recording (in 10m grid spacing). Horizontal and vertical positions (RTT-RTT) referenced to STN-A. Also additional manual soundings from face of structures.

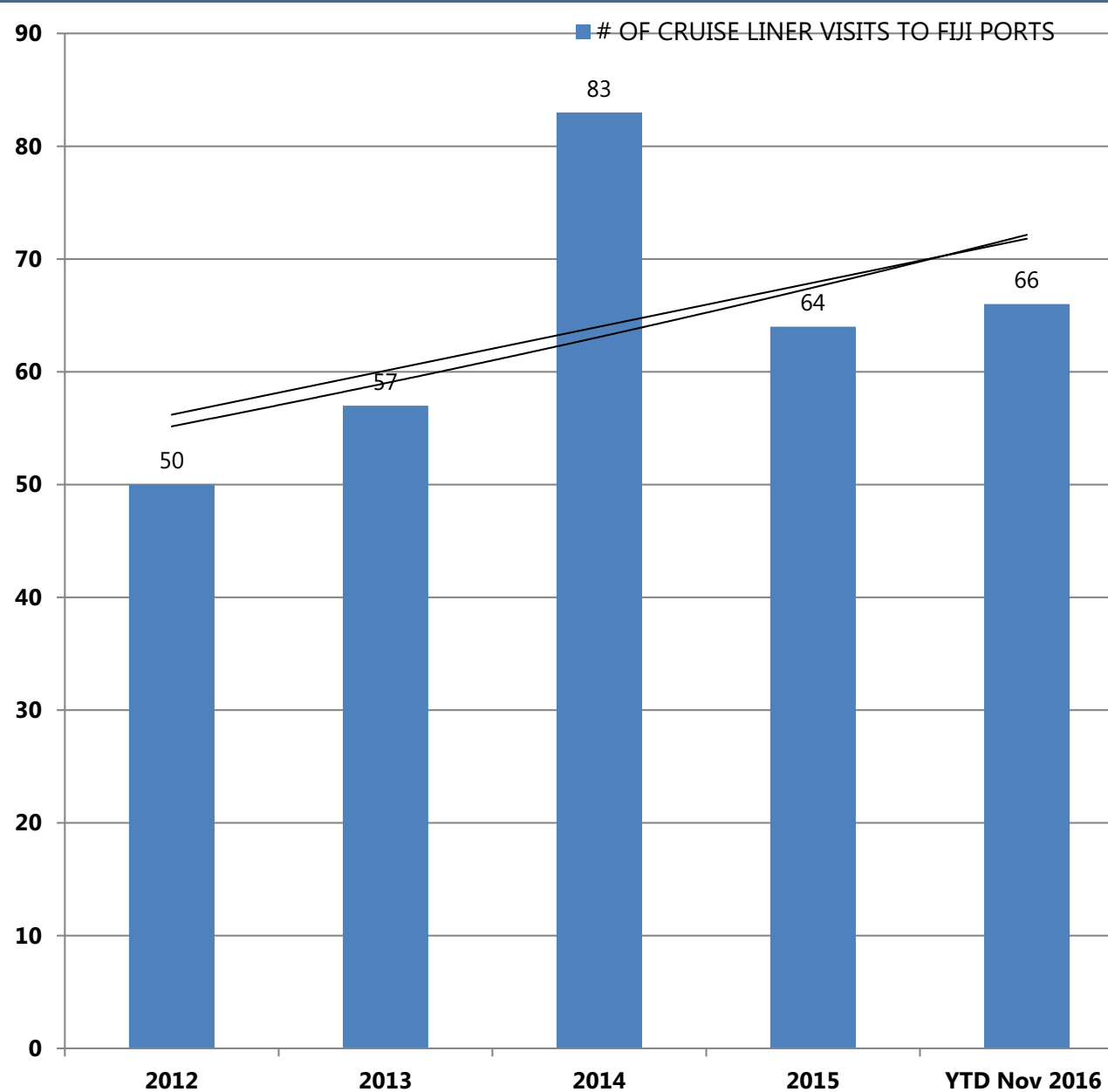
Deviation Table			
Number	Minimum Deviation	Maximum Deviation	Color
12	-5.0	-2.0	Purple
11	-4.0	-3.0	Dark Red
10	-5.0	-4.0	Red
9	-4.0	-3.0	Dark Red
8	-7.0	-6.0	Orange
7	-4.0	-3.0	Dark Red
6	-4.0	-3.0	Dark Red
5	-10.0	-9.0	Yellow
4	-11.0	-10.0	Light Green
3	-12.0	-11.0	Light Blue
2	-13.0	-12.0	Blue
1	-14.0	-13.0	Dark Blue



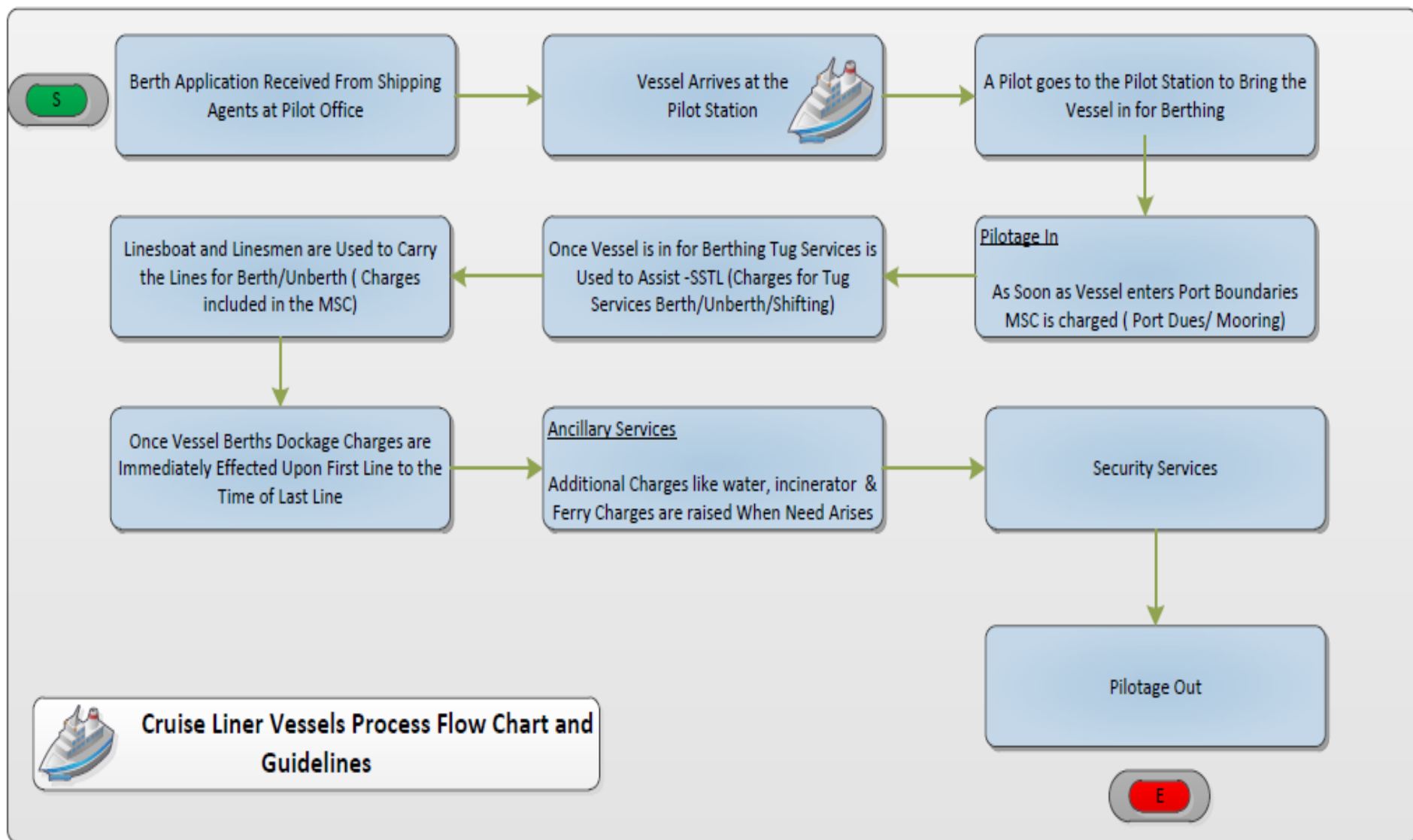
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# Facilitating Cruise and Tourism Industry

# Cruise Liner Arrivals (2012 -Nov 2016)



# Cruise Liners- Process Flow Chart





# Key Issues Addressed

- Cargo Handling
- Port Access
- Port Security
- Inter Island Shipping / Local Wharfs
- Derelict Removal
- Operational Reviews
- Sustainable Port Development / Operations

# Cost Analysis - Mid Stream Clinker Discharge

## COST ANALYSIS - BEFORE

	<u>Qty</u>	<u>GRT</u>	<u>Rate</u>	<u>Amount</u>
MSC (\$0.2860 x GRT x \$1048.00)	1	17100	0.286	5,917.72
DOCKAGE DRY BULK WORKING (Per 100 GRT x Hrs x \$2.72)	418 hrs	17100	2.72	194,420.16
ANC x 5Days (Per 100GRT x Daily Rates (1-7 @ \$5.00, 8-14 @ \$12.50, 15+ @	1	17100	4275	4,275.00
ANC x 3Days (Per 100GRT x Daily Rates (1-7 @ \$5.00, 8-14 @ \$12.50, 15+ @	1	17100	2565	2,565.00
ANC x 3Days (Per 100GRT x Daily Rates (1-7 @ \$5.00, 8-14 @ \$12.50, 15+ @	1	17100	30580	2,565.00
TUG SERVICE CHARGES FOR 20001-25000 GRT	7	17100	0.06	30,580.66
PILOT ASSISTED SHIFTING (Per GRT x \$0.0600 + 325)	26700		1.365	9,426.34
IMPORT WHARFAGE - DRY BULK				36,445.50
<b>TOTAL</b>				<b>286,195.38</b>

## COST ANALYSIS - AFTER

	<u>Qty</u>	<u>GRT</u>	<u>Rate</u>	<u>Amount</u>
MSC (\$0.2860 x GRT x \$1048.00)	1	17100	0.286	5,917.72
DOCKAGE DRY BULK WORKING (Per 100 GRT x Hrs x \$2.72)	168	17100	2.72	78,140.00
ANC x 5Days (Per 100GRT x Daily Rates (1-7 @ \$5.00, 8-14 @ \$12.50, 15+ @	0	17100	4275	-
ANC x 3Days (Per 100GRT x Daily Rates (1-7 @ \$5.00, 8-14 @ \$12.50, 15+ @	0	17100	2565	-
ANC x 3Days (Per 100GRT x Daily Rates (1-7 @ \$5.00, 8-14 @ \$12.50, 15+ @	0	17100	30580	-
TUG SERVICE CHARGES FOR 20001-25000 GRT	0	17100	0.06	-
PILOT ASSISTED SHIFTING (Per GRT x \$0.0600 + 325)	0		1.365	-
IMPORT WHARFAGE - DRY BULK				56,070.00
<b>TOTAL</b>				<b>140,127.72</b>

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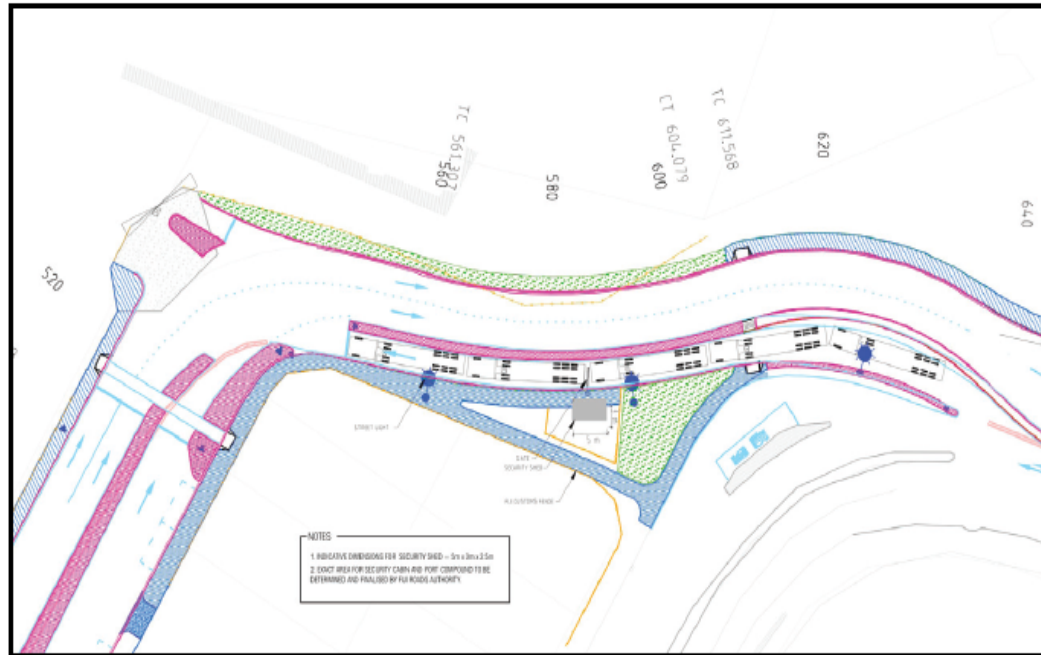
## Changes to protect roads and drivers

CHANGED access to the Port of Suva will protect the upgraded roads in the Central Business District and improve safety for vehicles moving within the wharf area.

With the Harris Road upgrade nearing completion and the upgraded Victoria Parade completed last year,

the changes are designed to lessen the flow of heavy trucks past the market and through the town, reducing wear and tear on the newly rehabilitated sections of road.

“MWH Global, consulting engineers to the Fiji Roads Authority, has



*The MWH Global engineers' drawing showing the changes to be made to the access and exit at the Port of Suva North gate.*

designed a lane that provides a straight run for heavy vehicles from the Walu Bay roundabout into and out of the North gate,” said FPCL Port Engineer, Mr Ronald Sue.

“At present, all traffic enters through the North gate and exits via the South.

In the future, all cargo operations using heavy vehicles will enter and exit the North gate. Security personnel will monitor all inward and outward bound traffic from a purpose-built gatehouse.

“It can be very hectic in the container storage area when the container ships come in, so the changes will reduce the traffic in

this area thereby improving safety. Small vehicles such as delivery vans, ships’ agents, Ports and PTL staff vehicles and other authorised vehicles will be required to enter and leave through the South gate instead of travelling through the cargo and container storage areas,” said Mr Sue.

# CCTV enhances security

SECURITY at the Ports of Suva and Lautoka has been enhanced with the commissioning of Closed Circuit Television (CCTV) surveillance cameras that will help the two ports maintain compliance with the all-important ISPS (International Ships and Ports Security) Code.

ISPS Code compliance ensures that international vessels continue to bring cruise vessel visitors and transport cargo to and from our shores.



*Samuela Tupou GM Customs (left) watches as Mr Issac Fong, CEO/Director Engineering, Professional Electronics Ltd, demonstrates the CCTV in Suva.*



# Local Wharf Revamping Project 2015 – Ongoing

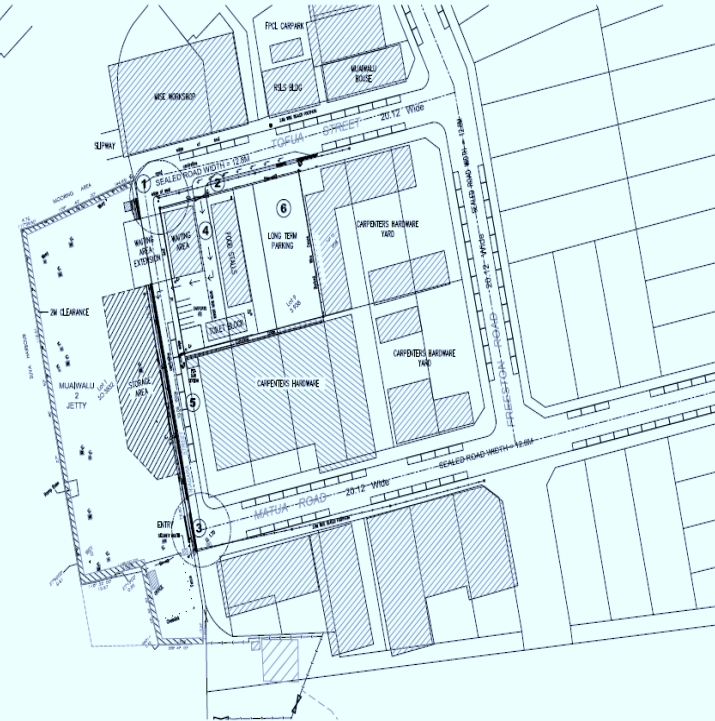
Current



Future

## LEGEND:

- ① AUTHORIZED ENTRY ONLY
- ② FERRY DROP-OFF & PICK UP ONLY
- ③ NO ENTRY
- ④ SHARED ZONE 100M/H
- ⑤ TAXIBAYS
- ⑥ LONG TERM PARKING



GENERAL NOTES			
1	2	3	4
5	6	7	8
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13	14	15	16
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37	38	39	40
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45	46	47	48
49	50	51	52
53	54	55	56
57	58	59	60
61	62	63	64
65	66	67	68
69	70	71	72
73	74	75	76
77	78	79	80
81	82	83	84
85	86	87	88
89	90	91	92
93	94	95	96
97	98	99	100



GENERAL NOTES			
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
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29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50	51	52
53	54	55	56
57	58	59	60
61	62	63	64
65	66	67	68
69	70	71	72
73	74	75	76
77	78	79	80
81	82	83	84
85	86	87	88
89	90	91	92
93	94	95	96
97	98	99	100



GENERAL NOTES			
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50	51	52
53	54	55	56
57	58	59	60
61	62	63	64
65	66	67	68
69	70	71	72
73	74	75	76
77	78	79	80
81	82	83	84
85	86	87	88
89	90	91	92
93	94	95	96
97	98	99	100



Stakeholder Consultation (Suva)



Muaiwalu Wharf 2



Stakeholder Consultation (Lautoka)

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# Removal of Derelict Vessels



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# FPCL Approach to Continual Improvement – Structured Reviews



## SECURITY REVIEW

30 JUNE 2015

Prepared by: RISK & COMPLIANCE UNIT

### 1.0 INTRODUCTION

Part of FPCL's obligation is to provide a safe and secure environment for people, cargo, and infrastructure assets. In view of this, the security of port facilities is of major importance within and also out of the Port boundaries in regards to the preparedness to deal with external influences and threats.

In order to enhance the security of ships and port facilities, FPCL has implemented the International Ship and Port Facility Security (ISPS) Code. This is basically to protect shipping against the external threats and also to strengthen the current security level for the company.

As such, the security review is an essential and integral part of the process to determine security measures and the areas that needs improvement.

### 2.0 PURPOSE OF THE REVIEW

The purpose is to review the current security arrangements within the port boundaries and determine the adequacy of risk surrounding and provide recommendations for improvement.

### 3.0 OBJECTIVES

The objectives of undertaking Security Review is to:

- Assess the security of port facilities;
- Review the regulatory requirements and its implementation status;
- Review the effectiveness of the current security level;
- Identify level of risk associated to the port facilities;
- Determine measures for improvement.

### 4.0 REVIEW TEAM COMPOSITION

The team comprise of:

- Chief Executive Officer;
- Chief Operating Officer;
- Chief Financial Officer;
- Senior Port Facilities Security Officer;
- Risk & Compliance Analyst; and
- Any other relevant parties at CEO's discretion.

### 5.0 FREQUENCY OF THE REVIEW

The Security Review will be carried out annually and updated each year with corrective actions for implementation.

Page 2 of 5



'To be the maritime gateway in the Pacific region through facilitating waterborne transport, trade and commerce'

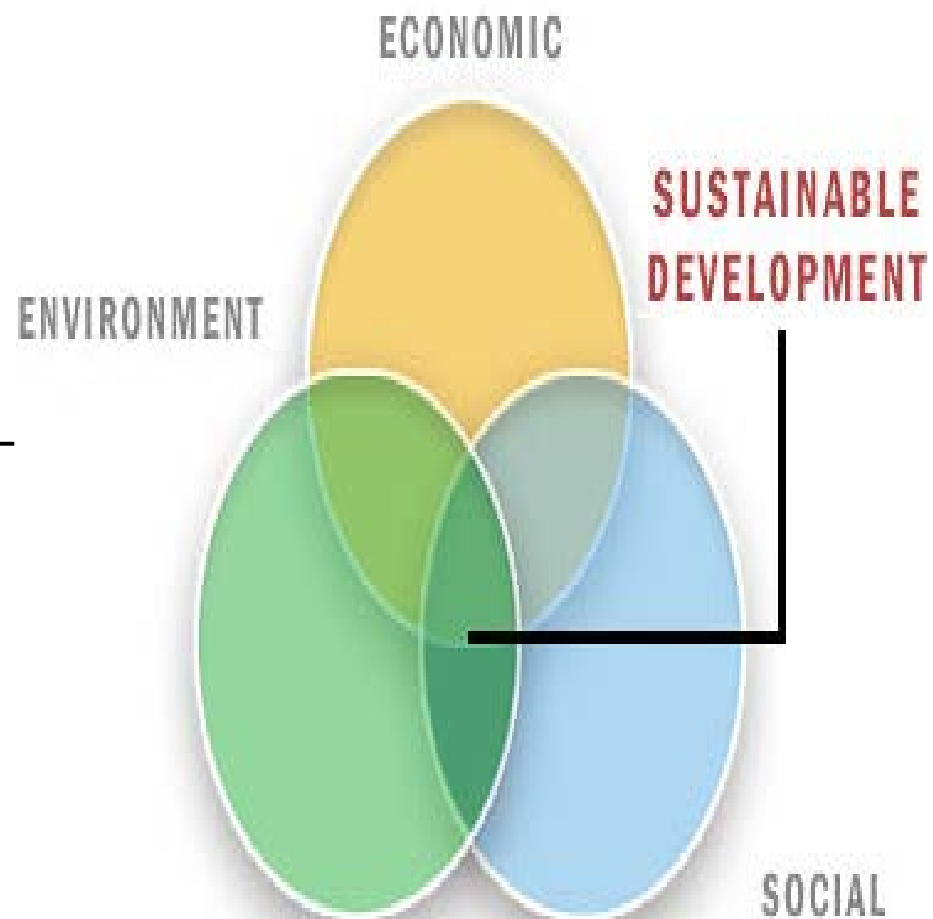
# Sustainability Initiatives at Fiji Ports

## Current

- ✓ Port Environmental Policy
- ✓ Port Green Energy Policy
- ✓ Management of Hazardous and non-Hazardous waste generated by port / Tenants activities
- ✓ Sustainability and Stewardship of FPCL Assets
- ✓ Port Energy Policy
- ✓ Port Environmental Management Plan

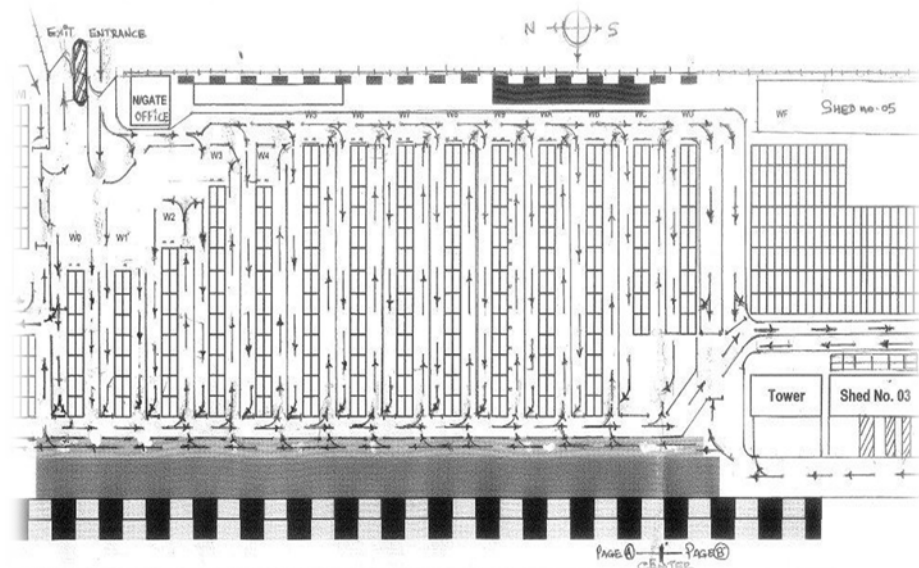
## Planned

- Port Sustainability Plan
- Port Energy Plan
- Stakeholder Engagement

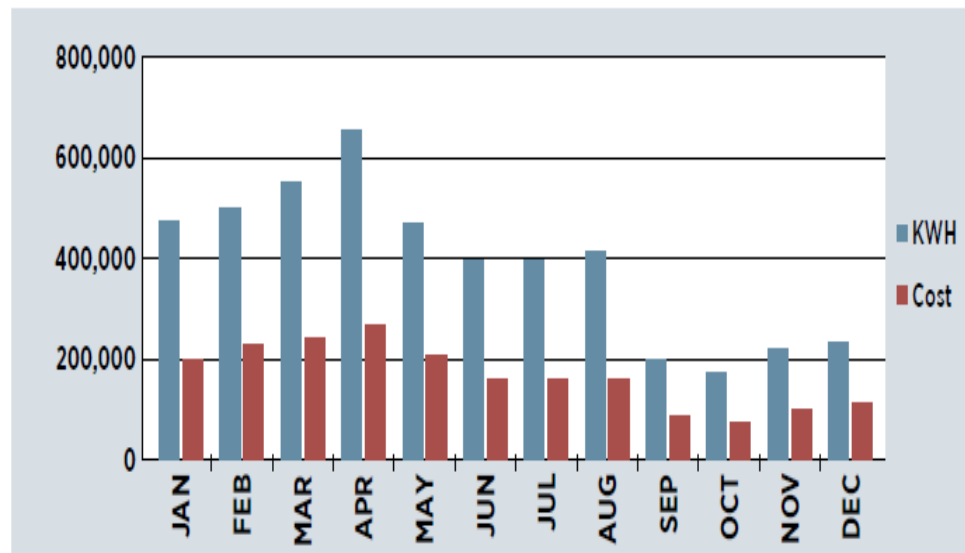




# Air Quality, Energy Efficiency and Traffic Management



Fiji Port's Energy Consumption 2013



Tower Lights

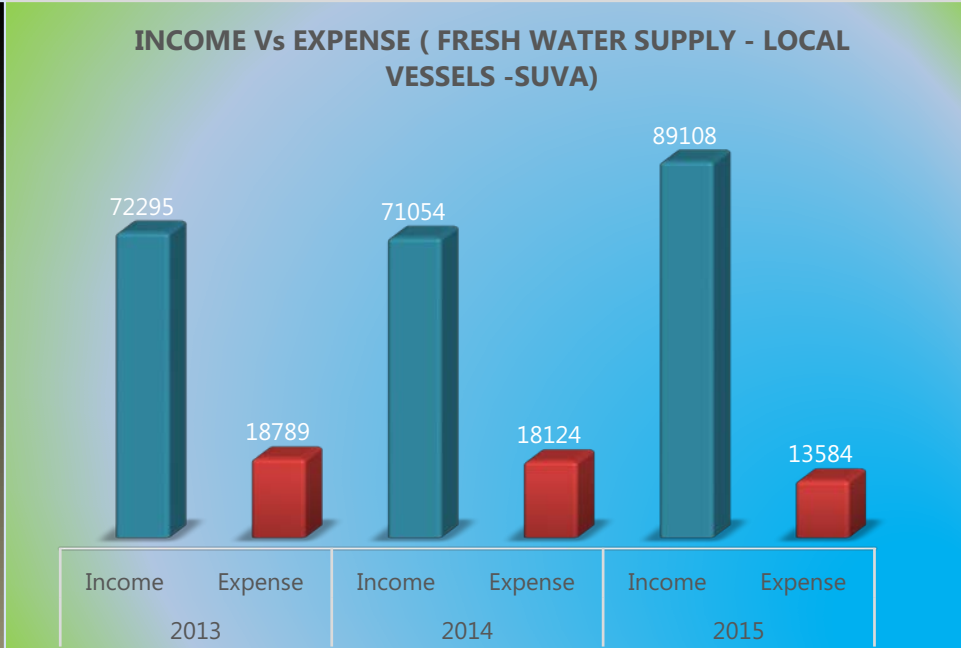
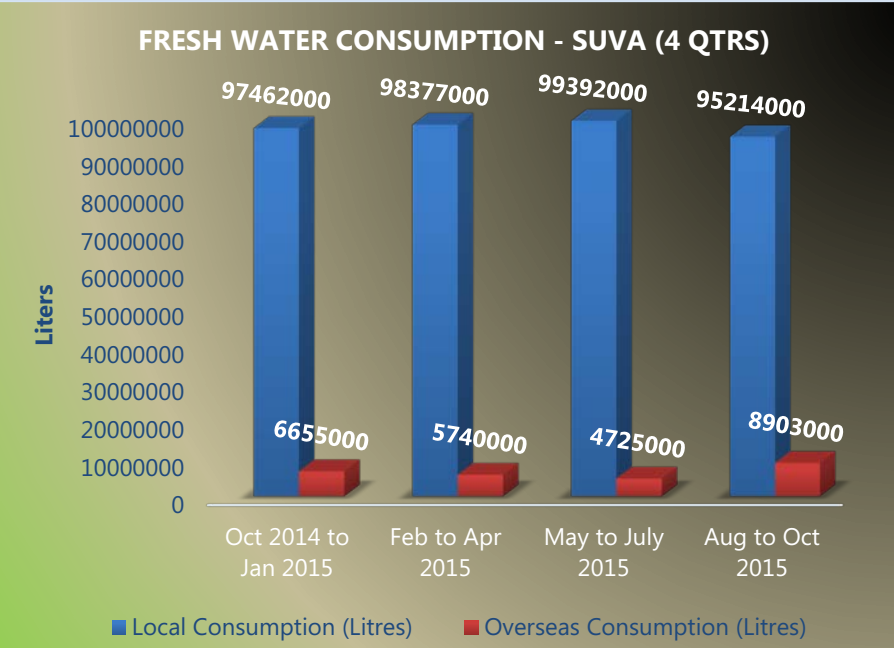
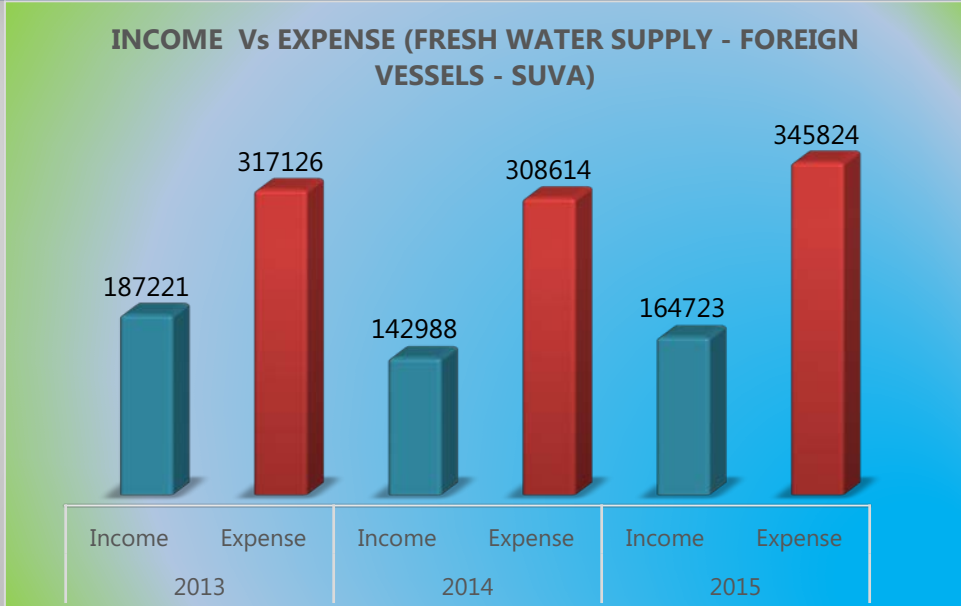
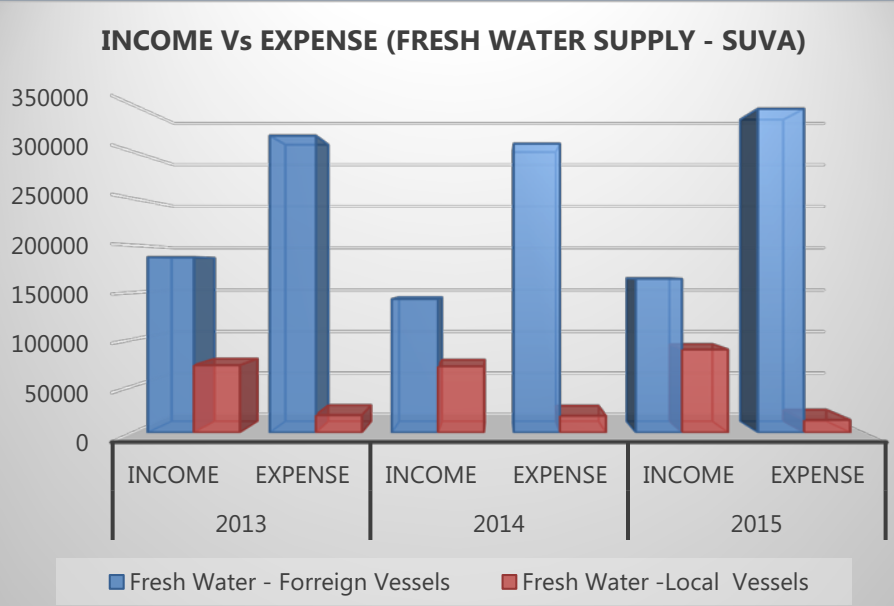


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# Operations – Data Collection, Analysis & Improvements (Examples)

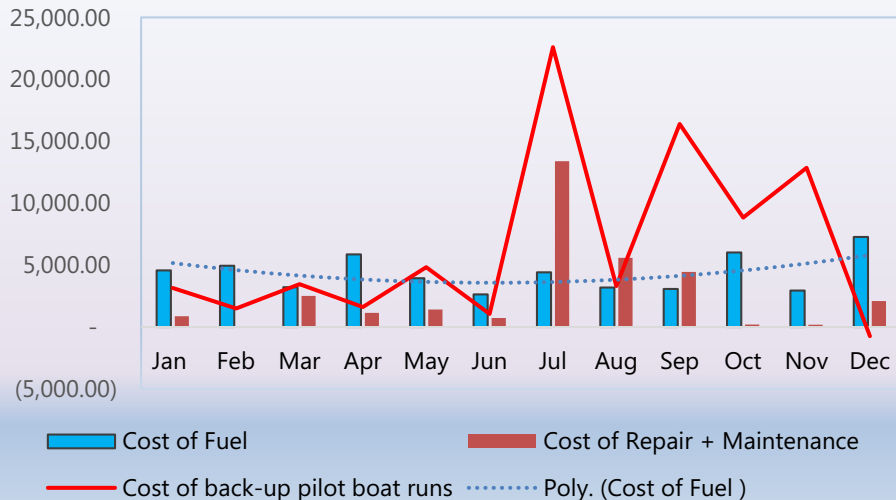
- Fresh Water Consumption
- Pilot Boat Fuel Consumption

# Freshwater Consumption Analysis

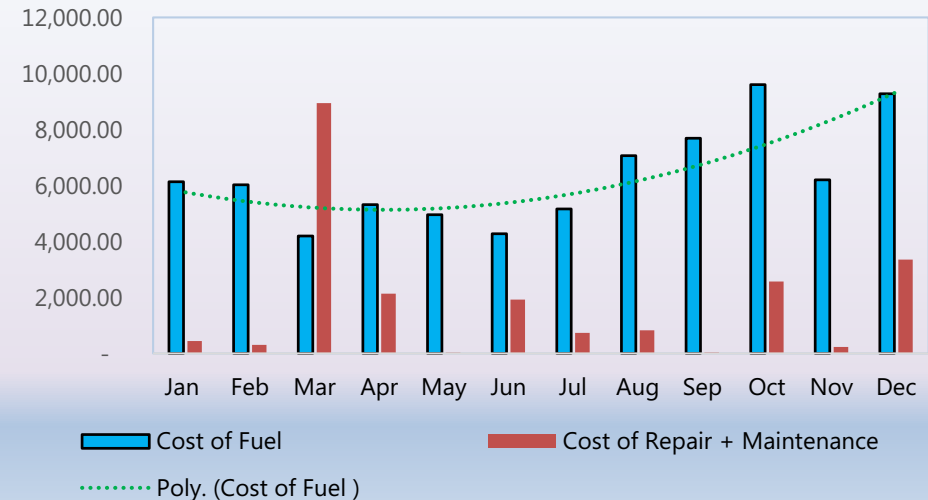


# Pilot Boat Fuel Oil Consumption Analysis

**Pilot Boat ( Murimai) Expenses - 2015**



**Pilot Boat (Senibiau) Expenses - 2015**



**MURIMAI 2015**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
Cost of Fuel	4,563.53	4,941.40	3,213.92	5,857.45	3,937.38	2,627.86	4,414.48	3,190.02	3,074.72	6,010.40	2,935.68	7,269.14	52,035.98
Cost of Repair + Maintenance	870.20	8.85	2,509.30	1,138.06	1,413.75	720.38	13,396.49	5,577.35	4,441.09	200.00	177.52	2,092.22	32,545.21
Cost of back-up pilot boat runs	3,150.00	1,493.48	3,456.52	1,610.87	4,829.13	1,050.00	22,600.00	3,300.00	16,401.00	8,839.00	12,860.00	-745	

**SENIBIAU 2015**

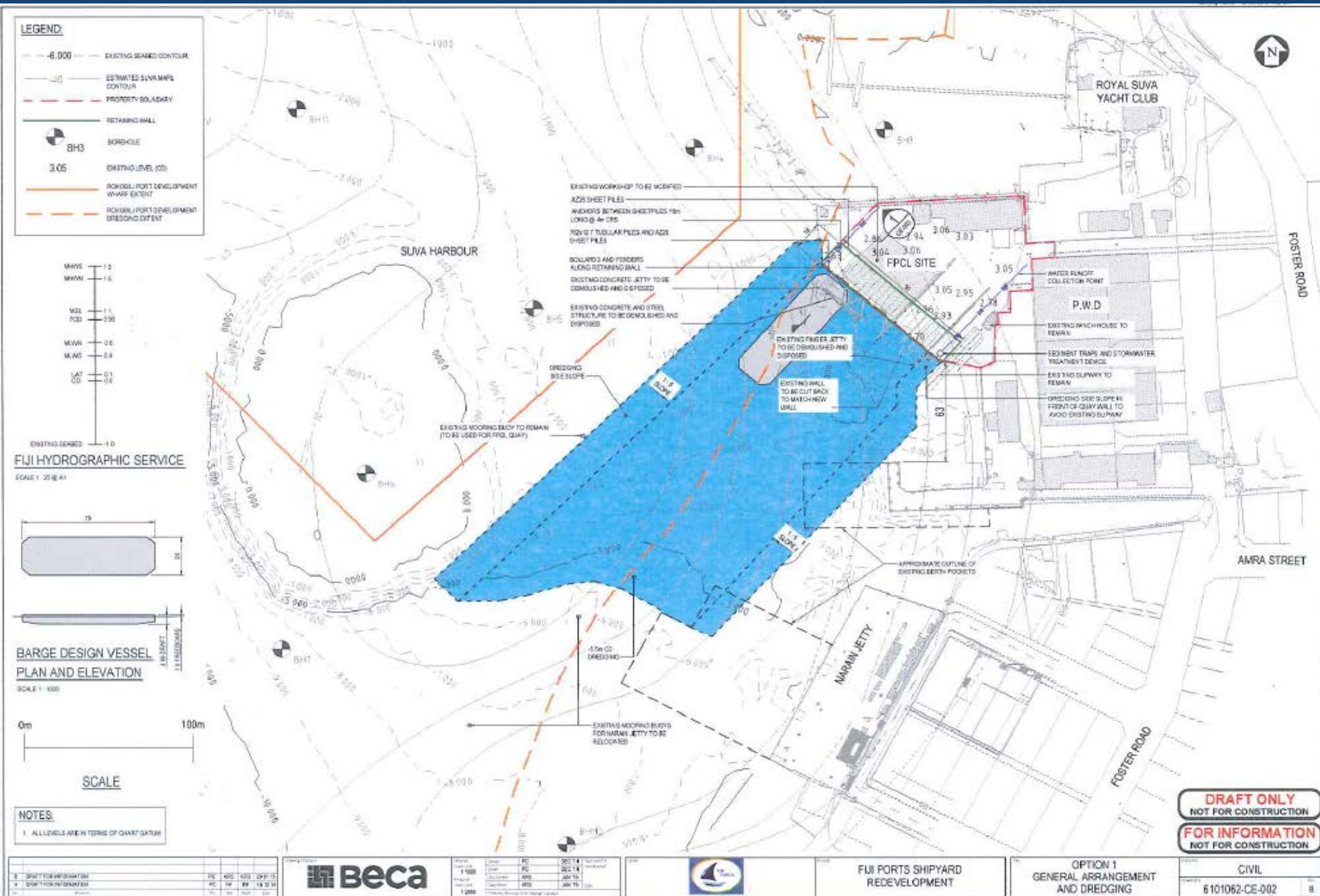
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
Cost of Fuel	6,130.50	6,026.10	4,193.88	5,313.07	4,956.60	4,274.32	5,158.57	7,061.29	7,686.80	9,599.97	6,202.24	9,275.01	75,878.35
Cost of Repair + Maintenance	445.22	305.92	8,942.31	2,134.69	31.22	1,923.73	733.26	824.29	40.00	2,571.04	232.13	3,351.40	21,535.21



# Other Proposed Projects

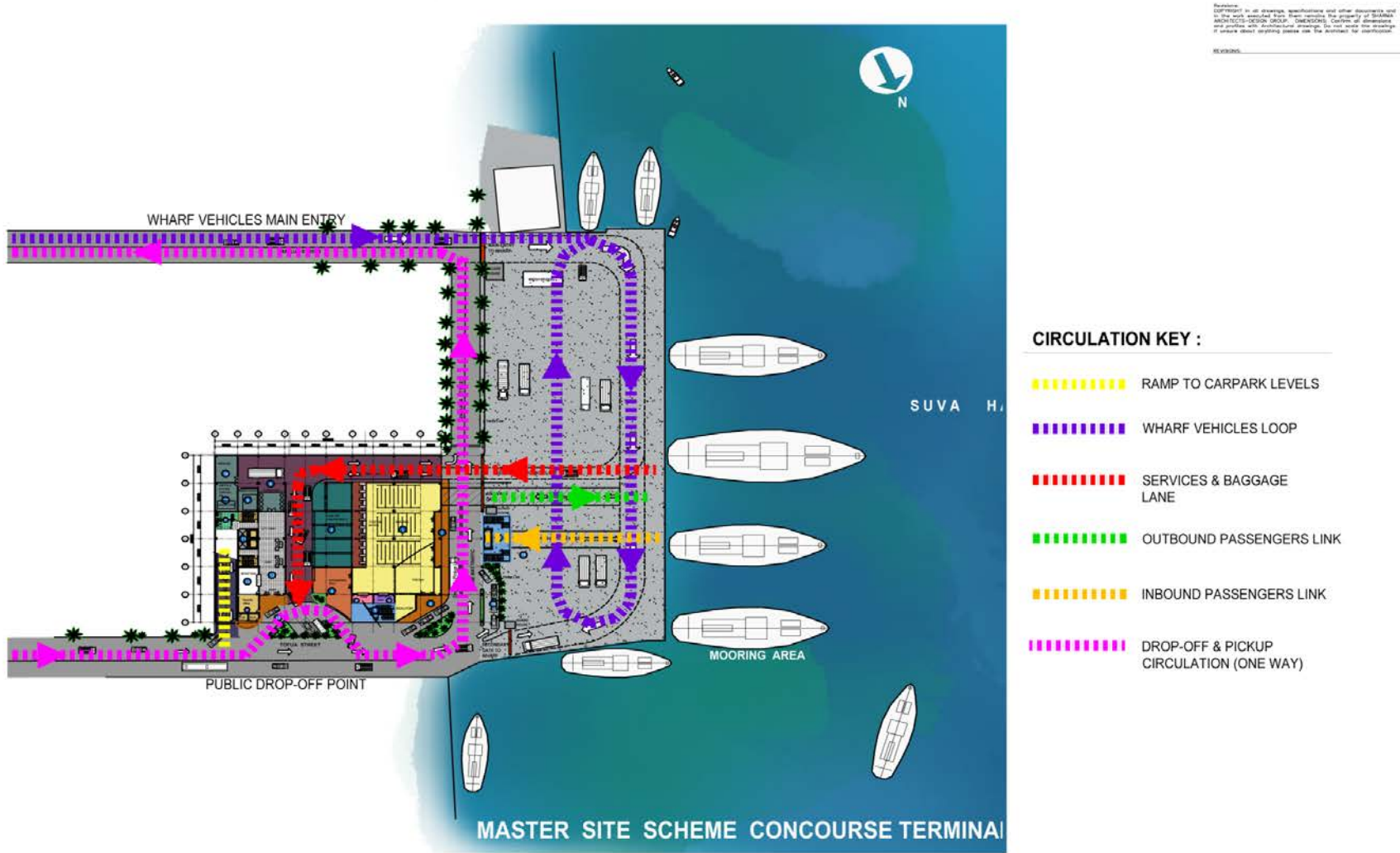
- Improvements to Existing Local Wharf
- New Local Wharf Development
- Amex Wharf Development Project

# New Local Wharf Development Project



'To be the maritime gateway in the Pacific region through facilitating waterborne transport, trade and commerce'

# New Multi Story Building & Muaiwalu 2 Development Project cont.



**SHARMA ARCHITECTS DESIGN GROUP**  
A Collaboration of Architects, Engineers, Planners, Programmers, and Designers  
2nd Floor, Priced Building, Suva  
Phone: (812) 3333, 3333 (24/7) 2333, 2333  
E-mail: sharmaarchitects@connect.com.fj

PROJECT	CONCEPT PLANNING FOR FEASIBILITY STUDY OFFICE & TERMINAL DEVELOPMENT	SHEET TITLE	TRAFFIC SCHEME PLAN CONCOURSE TERMINAL AT MUAIWALU JETTY
CLIENT	MARITIME & PORTS AUTHORITY OF FIJI	SCALE	A01.1
		DATE: 06/10/02	PROJECT NO.
		SHEET NO.	REVISION NO.

D:\JONAS\FILES\05-15 Maritime & Ports Authority of Fiji - Walu Bay Suva\A08 BOARD PRESENTATION\LEVEL 0 ground fl plan.dwg, 10/31/2002 8:48:09 AM

'To be the maritime gateway in the Pacific region through facilitating waterborne transport, trade and commerce'



## Amex Resources - FPCL Update

24 October 2013



### Amex Port Facility Progress

- ✓ Construction of access road complete
- ✓ Site security perimeter fencing erected
- ✓ Water and power connection complete
- ✓ Site office facility complex constructed

### Construction Tenders Closing 31 October

- Seven international & local groups invited
- Site visits will be completed this week
- Award of Contract pre-Christmas

### Project Expenditure and Funding Status

- \$25 million expenditure to date
- Additional \$90 million funding confirmed
- Remaining \$45 million to be finalised in line with construction schedules

### Marine Fleet Contract Execution Dates

- Transport Barges: 31 October 2013 (China Merchants Group)
- Dredge & workboat: November 2013 (IHC Merwede)
- Floating Process Plant: pre-Christmas (IHC Merwede)



# Future Development Projects

- Port Master Plan Development  
by ADB
- Rokobili Terminal Project

# Ports Master Plan Development



# Ports Master Plan Development Project by ADB

## Proposed Schedule of Activities

Item	Proposed Schedule
Inception Report	Completed
Demand Assessment	18 November 2016
Port Utilization Study	18 November 2016
Wreck/Abandoned Vessel Recommendations (New deliverable)	18 November 2016
7-year Action Plan	25 November 2016
Draft Final Report	31 January 2017
Review of Draft Final Report by ADB/Government	28 February 2017
Final Report	17 March 2017

# Proposed Rokobili Terminal Project



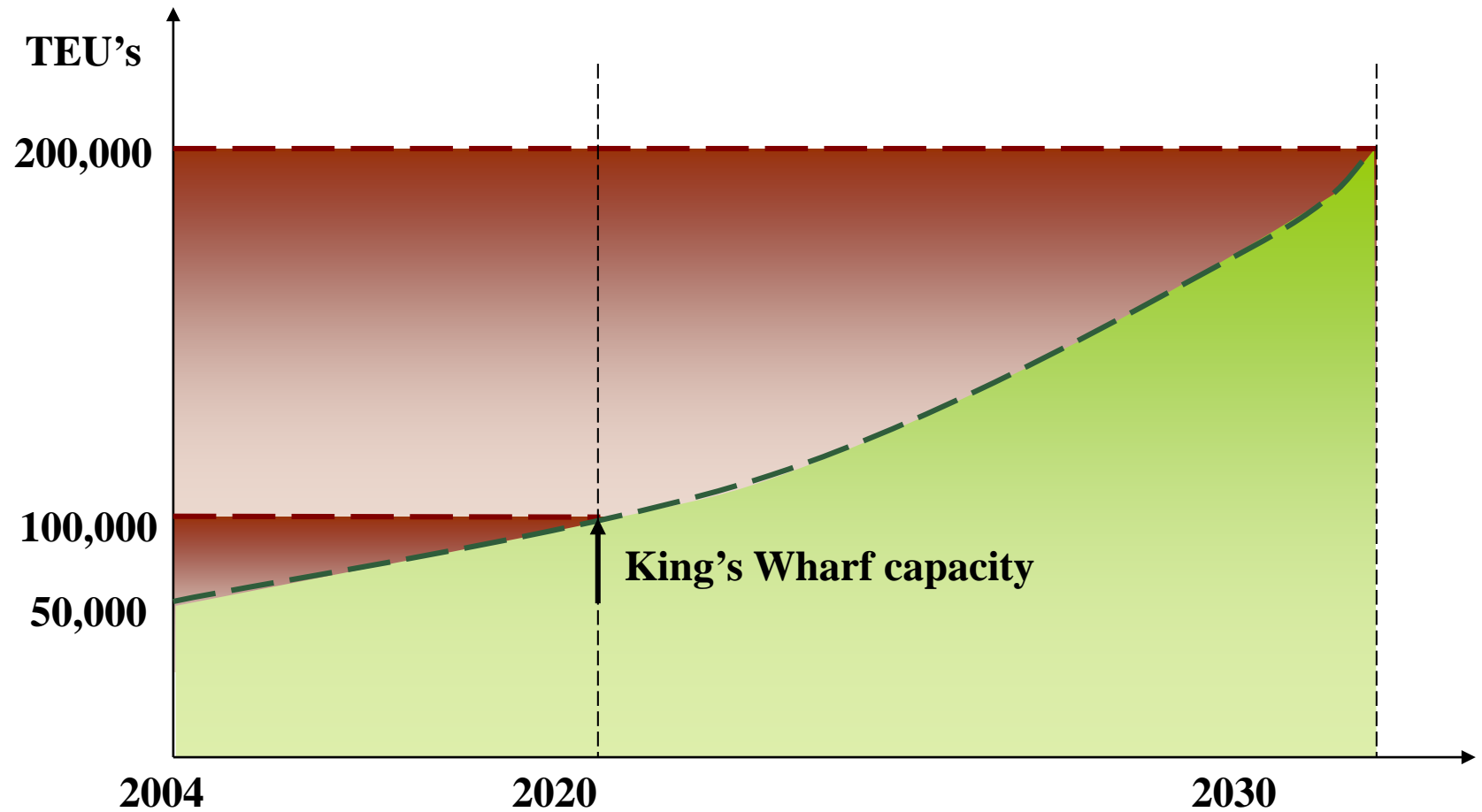
# Proposed Rokobili Terminal

- Rokobili Terminal offers savings of five sailing days on the US/NZ run and 7 sailing days on the US/AUS run-coveted to financial quantum, this is quite substantial
- Presents opportunities for savings on operational costs realized from higher efficiency levels
- Savings on sailing time in the servicing of the individual ports in Australia and New Zealand
- The total effect of using Rokobili would be a reduction in total voyage costs

# The Location



# When is a New Facility needed?





## Stage 1 - Dredge Option





# Basic Data - (Stage 1)

- 227,000 m<sup>2</sup> reclaimed land
- Reclamation approx 1.6 million cubic meters
- Dredge material approx 900,000 cubic meters to get to 13m at chart datum (CD)
- 400 meters of berth at - 13m CD
- 295 meters of secondary wharf - multi-purposes
- Approx capacity 200,000 TEU
- Estimate \$360m FJD

# Full Development



## Basic Data - Full development

- 50.5 Ha reclaimed land
- Reclamation approx 2.4 million cubic meters
- Existing site – soft sediments to depth of between 30m and 60m over Suva marl (soapstone)
- 800 meters of berth at -13 CD
- Approx capacity 600,000 TEU
- Estimate FJD \$598 million



# Artist Impression of ROKOBILI Terminal

**BEFORE**



**AFTER**





# Recent Achievements



**Winners of 2015 Fiji Business Excellence Achievement Level Award**



**FNU Environmental Award presented to FPCL by US Ambassador, 2016**



**Winners of 2016 Fiji Business Excellence Prize Level Award**

THANK YOU

