



## **PACIFIC WATER AND WASTEWATER ASSOCIATION**



# **BENCHMARKING 2017**

Water Sector in Transition: Seven Years of Benchmarking

The Pacific Water and Wastewater Association is a not-for-profit membership body that facilitates water and wastewater utilities of the Pacific region in improving their services through cooperation, benchmarking, and learning from each other. The PWWA has been based in Samoa since 2007. The Association remains under the control of its Pacific Utility Members.

PWWA annually organizes benchmarking data collection for its members facilitating regional exchanges with the support of water professionals from the Asian Development Bank, Australia, New Zealand, and the United States of America.

All performance and tariff information are summarized at the PWWA website [www.pwwa.ws](http://www.pwwa.ws).

<b>Drinking Water</b>	<b>Wastewater</b>
<b>Number of utilities: 29</b>	<b>Number of utilities: 20</b>
<b>Total number of people supplied with drinking water by PWWA utilities: 2,784,121 or 89.5% of total residents living in service responsibility zones</b>	<b>Total number of people connected to wastewater network by the PWWA utilities: 760,525 or 47.5% of total residents living in service responsibility zones</b>
<b>Annual turnover of the PWWA water services: US\$263.76 million</b>	<b>Annual turnover of PWWA wastewater services: US\$49.25 million</b>

## Statement from PWWA Chief Executive Officer



*Dear Members and PWWA friends*

*This report provides utility members of the Pacific Water and Wastewater Association (PWWA), their customers, authorities, and development partners with a structured and comprehensive quantitative snapshot of the performance of municipal water and wastewater services. It is a result of the consolidated efforts from all utilities and PWWA staff to collect information at the utility level and nationally. It is hoped that this report will assist utilities and their partners identify areas where priority action and reforms can be focused and help improve the efficiency of our water institutions, determine approaches that provide universal access to water and wastewater services and support sustainable service delivery for all customers.*

*The PWWA benchmarking started in 2010 to contribute to the PWWA vision and mission and attract attention of utilities, development partners, customers and all concerned parties to the water sector of the Pacific Islands. The first attempt, financed by the Pacific Regional Infrastructure Facility (PRIF), allowed systematic data collection to become a norm for all utilities. Since 2011, PWWA uses the tools and instruments of the International Benchmarking of Water and Sanitation Utilities of the World Bank (IBNET) to collect data. With support from our development partners and dedication of our utilities, we have collected performance data and analyzed results from every water service provider in the region.*

*We also realized that the data demand can be excessive for small utilities and those that have just started their operation. For these utilities, we developed a simplified version of the data collection toolkit. However, we hope that soon these utilities will be able to report standardized performance indicators. PWWA fully understands the importance of finance in evaluating performance. Thus, we developed the PWWA tariff database that provides an additional context for understanding performance issues of our utilities.*

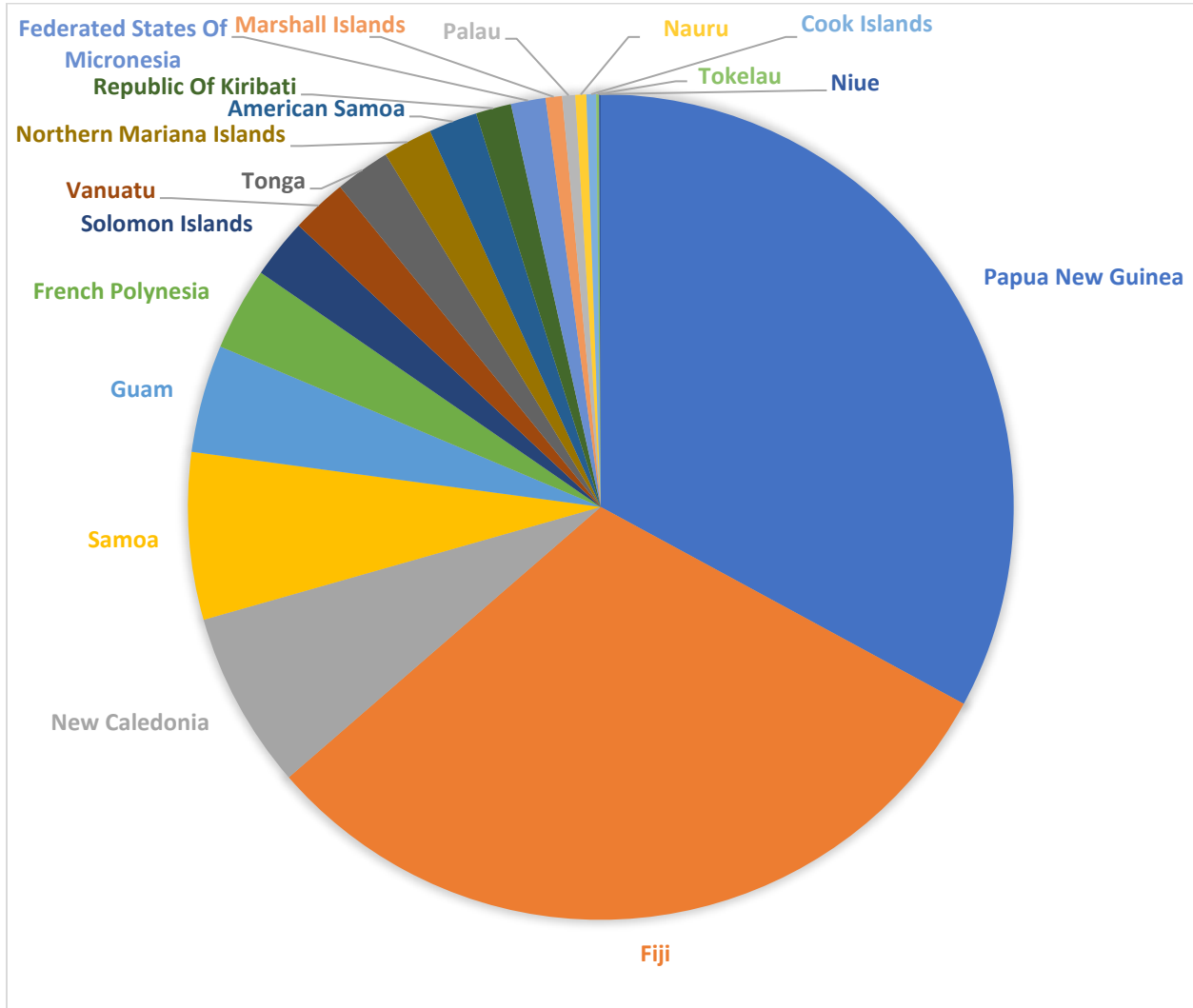
*We hope that this report will be useful to all our colleagues and friends and bring more attention to the water and sanitation sector of the island nations and territories of the Pacific region.*

*Pitolau Lusie Sefo Leau*  
**Chief Executive Officer**  
**Pacific Water and Wastewater Association**

## 1. PWWA utilities

The Pacific Water and Wastewater Association (PWWA) membership consists of 29 water and wastewater utilities from 20 countries and territories of the Pacific Region. The PWWA collects technical and financial performance data from its utility members, and all of them participated in the PWWA benchmarking exercises.

**Fig 1. Population served by country**



**Population served by PWWA utilities (2017)**

<u>Country</u>	<u>Population served by PWWA utilities</u>
<u>Papua New Guinea</u>	916,325
<u>Fiji</u>	855,300
<u>New Caledonia</u>	193,722
<u>Samoa</u>	182,199
<u>Guam</u>	117,400
<u>French Polynesia</u>	90,608
<u>Solomon Islands</u>	64,817
<u>Vanuatu</u>	60,965
<u>Tonga</u>	59,992
<u>Northern Marianas Islands</u>	53,900
<u>American Samoa</u>	53,000
<u>Republic of Kiribati</u>	38,605
<u>Federated States of Micronesia</u>	37,758
<u>Marshall Islands</u>	17,909
<u>Palau</u>	14,128
<u>Nauru</u>	12,012
<u>Cook Islands</u>	10,600
<u>Tokelau</u>	3,000
<u>Niue</u>	1,900

The utilities vary by their development status.

**Group 1** consists of five well-established and developed utilities from countries and territories with Atlas GNI per capita of US\$25,000 and above. These are American Samoa Water and Power Authority, ASPA (American Samoa); Calédonienne-des-Eaux (New Caledonia), Guam Water Authority (Guam); Polynésienne-des-Eaux (French Polynesia); and Commonwealth Utilities Corporation (Northern Mariana Islands).

**Group 2** consist of utilities in countries with transitional economies with GNI per capita from US\$3,000 to US\$20,000. These are Water Authority of Fiji, WAF (Fiji); Central Yap State Public Service Corporation, Chuuk Public Utilities Corporation, Department of Transportation and Infrastructure, Kosrae, Northern Yap Gagil Tomil Authority, Pohnpei Utilities, and Southern Yap Water Authority (all six Federated States of Micronesia); Kwajalein Atoll Joint Utility Resources, KAJUR and Majuro Water and Sewer Company Inc., MWSC, (Marshall Islands); Palau Public Utilities Corporation, PPUC (Palau); Ncd Water & Sewerage Ltd Trading as Eda Ranu and Water-PNG (Papua New Guinea); Kiribati Public Utilities Board (Kiribati); Samoa Water Authority (Samoa); Solomon Islands Water Authority (Solomon Islands); Tonga Water Board (Tonga); Tuvalu Ministry of Utilities and Industries (Tuvalu); and Unelco Vanuatu Limited (Vanuatu).

**Group 3** utilities operate either in a decentralized environment, where a utility type benchmarking is impossible at this stage, or recently established small companies. These are Independent Water Schemes Association, Samoa; Niue Public Works Department (Niue); Vanuatu Department of Water Resources (Vanuatu); Cook Islands Ministry of Infrastructure and Planning (Cook Islands); Nauru Utilities Corporation (Nauru); and Tokelau Division of Environment (Tokelau).

The following table presents participation in the PWWA benchmarking studies:

**Table 1. PWWA Utilities Participation in Water Benchmarking\***

		2011	2012	2013	2014	2015	2016	2017
Group 1	American Samoa Water and Power Authority							
	Calédonia-des-Eaux							
	Guam Water Authority							
	Polynésienne des Eaux							
	Commonwealth Utilities Corporation							
Group 2	Water Authority of Fiji							
	Central Yap State Public Service Corporation,							
	Chuuk Public Utilities Corporation							
	Dept. of Transportation and Infrastructure Kosrae							
	Northern Yap Gagil Tomil Authority							
	Pohnpei Utilities							
	Southern Yap Water Authority							
	Kwajalein Atoll Joint Utility Resources, KAJUR							
	Majuro Water and Sewer Company Inc.							
	Palau Public Utilities Corporation, PPUC							
	Ncd Water & Sewerage Ltd Trading as Eda Ranu							
	Water-PNG							
	Kiribati Public Utilities Board (Kiribati)							
	Samoa Water Authority (Samoa)							
	Solomon Islands Water Authority							
	Tonga Water Board							
	Tuvalu Ministry of Utilities and Industries							
Unelco Vanuatu Limited								
Group 3	Independent Water Schemes Association, Samoa							
	Niue Public Works Department							
	Cook Islands Ministry of Infrastructure and Planning							
	Nauru Utilities Corporation							
	Tokelau Division of Environment							
	Vanuatu Department of Water Resources							

\*GWA Guam, CU Northern Mariana Islands and Northern Yap, The Federated States of Micronesia did not participate in PWWA benchmarking in recent years. We hope they will join us in 2018 performance review.

## 2. Tools and Methodology

Performance data and tariffs were collected voluntarily from all PWWA utilities-members. For utilities in Groups 1 and 2, PWWA used the standardized Excel-based data collection toolkit based on the methodology developed by the World Bank IBNET program ([www.ib-net.org](http://www.ib-net.org)). The IBNET toolkit collects nearly 90 parameters from each company per year. It has internal checks that prevent common errors and allows for basic consistency. This tool is also multilingual and allows the use of US Imperial units (such as gallons and miles), which are common in the Northern Chapter of the PWWA that consists of American territories, Marshall Islands, Federated States of Micronesia and Palau.

The collected data was reviewed, cleaned and analyzed by the PWWA secretariat. After the review, the collected information was uploaded to the PWWA benchmarking portal at [www.pwwa.ws](http://www.pwwa.ws). There were several additional consistency tests at upload as well.

The majority of analysis was done for the utilities in Groups 1 and 2. For smaller and decentralized utilities in Group 3, PWWA developed a simplified version of the data collection tool. While simple, this tool prepares these utilities for full-scale data collection. Group 3 data and indicators were used where possible for analysis, considering limited information was available on them.

Twenty-five companies are state-owned companies with some level of autonomy, and four companies - Eda Ranu, PNG, Calédonienne-des-Eaux, Polynésienne des-Eaux, and Unelco Vanuatu Limited - are privately managed entities. Twelve PWWA members are joint infrastructure companies that also provide electricity services. However, in all cases, water services are financially and technically ring-fenced from other services.

### **3. Specific of PWWA utilities**

In addition to the remote location of the PWWA utilities, there are several factors that drive performance of PWWA members. First, utilities are major water services providers and as such they enjoy Government support. This support comes with direct grants for investments and direct transfers to keep utilities afloat. Second, majority of water and wastewater systems were built almost simultaneously during 1970-1990, and only relatively small investments were made after 2000. As a result, many systems need urgent rehabilitation and modernization due to excessive leaks and pipe ruptures.

Several islands have no reliable water resources - including Marshall Islands, Nauru, Kiribati, Tokelau and a few other places. On the other hand, excessive losses, exceeding 50 percent of the water produced are reported by nine utilities (of the 22 utilities reporting this parameter). New technological solutions, however, may not be affordable for many of PWWA members.

### **4. Service and coverage**

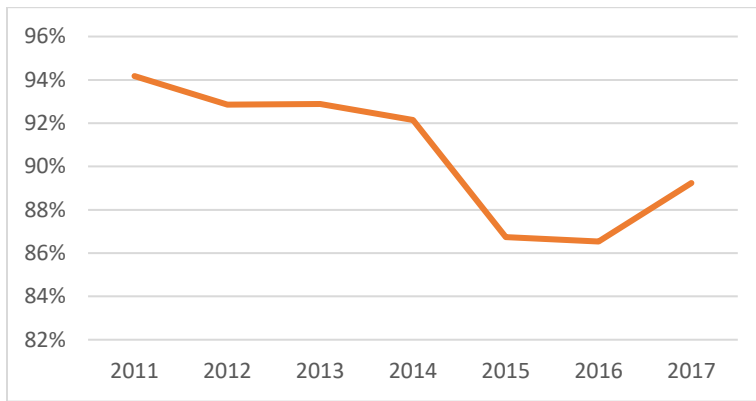
All PWWA utilities provide water services within administrative borders of their territories. Wastewater services are provided by 15 utilities; and in the 14 remaining utilities, wastewater is managed by either municipal authorities or separate small-scale providers that also empty latrines in addition to providing regular wastewater services. Smaller utilities, like Niue or Vanuatu Department of Water Resources, also provide services for emptying latrines as part of regular operations.

Fifteen companies are national utilities; thus, are nominally responsible for providing water supply to all urban residents. Eda Ranu from Port Moresby, Papua New Guinea, supplies water and provides wastewater services to the capital city, while Water PNG serves 19 other municipalities of the country. Samoa Water Authority provides water service to approximately 83% of the population of Samoa residing in urban and rural areas, where a few rural communities are covered under Independent Water Schemes Association. Unelco works in Port Villa, and the Vanuatu Department of Environment provides water services to the rest of the country. Two separate utilities of Marshall Islands serve each of the Kwajalein and Majuro islands. For the Federated States of Micronesia, three utilities are located on Yap Island, and three others serve the other islands.

Overall, coverage of water services is high. But the coverage is not able to keep up with rapid urbanization. In the case of Water Authority of Fiji (WAF), the mandate to expand to new territories also affected coverage. However, PWWA utilities reversed the negative trend in 2017.

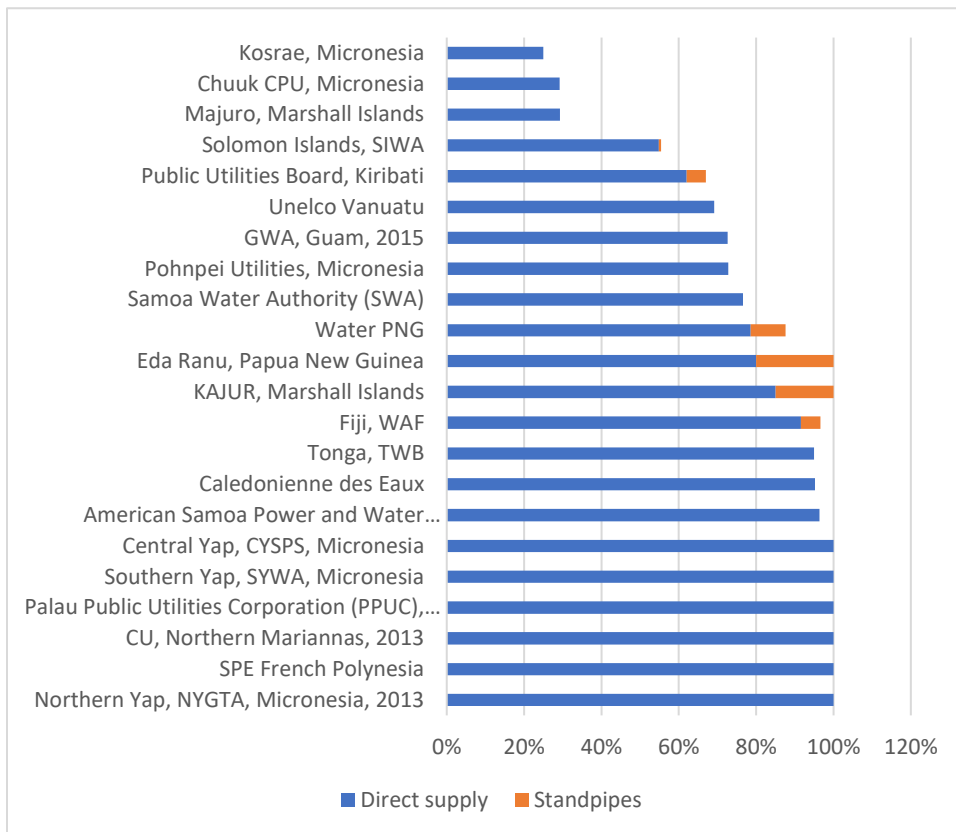
**Fig 2. Coverage with water services, %**





Individual utilities performance presented on the Figure 3.

**Fig. 3 Water coverage by utilities (2017)\***



\*Here and thereafter: all results are of 2017 if not marked otherwise.

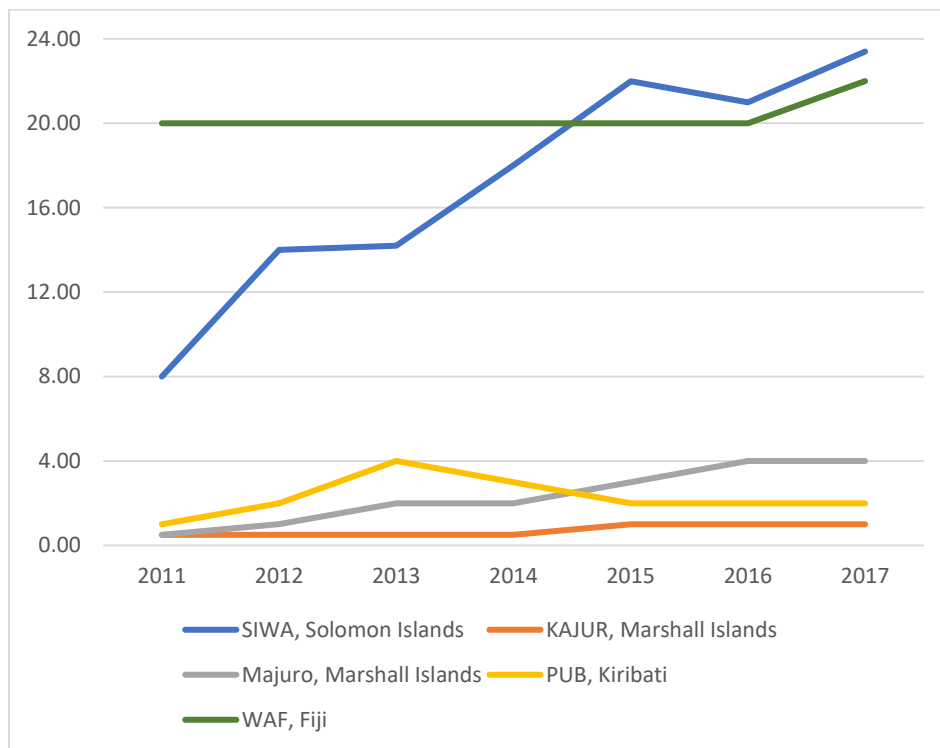
Eight utilities reported 100 percent water coverage. It is important to note that the largest utilities have a significant proportion of population served by standpipes and decentralized water sources, such as in Fiji, both PNG companies, and KAJUR, Marshall Islands. Some decentralized services are also present in PUB Kiribati (five percent) and SIWA Solomon Islands (one percent). All water is delivered through standpipes and trucks in Nauru and partially in other utilities of the Group 3.

## 5. Water reliability



Water is provided 24/7 in majority of PWWA utilities. Water in Marshall Islands and Kiribati is provided 1-4 hours a day due to significant water shortages. The most remarkable progress is with SIWA, Solomon Islands that increased operations from just eight hours a day to almost 24/7. See the Figure 4 below.

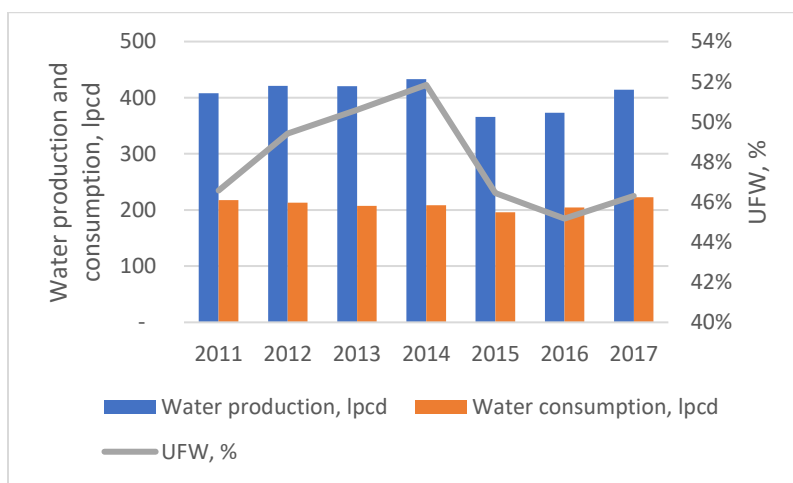
**Fig 4. Water operations progress in selected utilities (hours a day)**



### 6. Water consumption, production and unaccounted-for-water

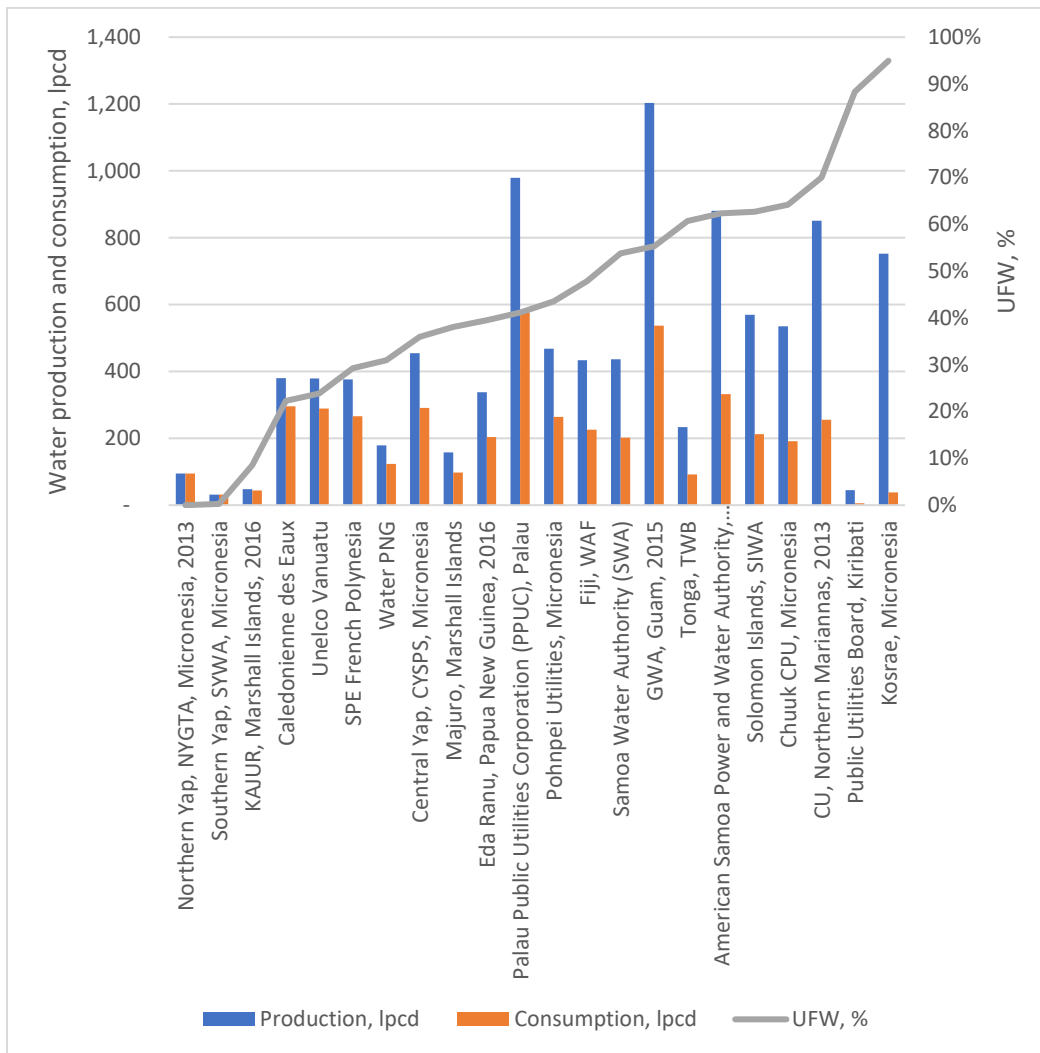
Benchmarking and reported results brought significant improvements in potable water management. Overall consumption per capita was reduced in almost every PWWA utility along with losses reduction.

**Fig. 5 Trends in water production, consumption and Unaccounted-for-Water (UFW)**



Water is a precious commodity almost in all PWWA areas of operation. The most difficult situation is in Marshall Islands, where both utilities collect water from the airport runways, whose paved area makes it an ideal surface to collect rainwater. Water is also very hard to get in Kiribati, Nauru, Niue and in all places in Federated States of Micronesia. Thus, consumption is very low in these places.

**Fig. 6 PWWA Water production, consumption and UFW**



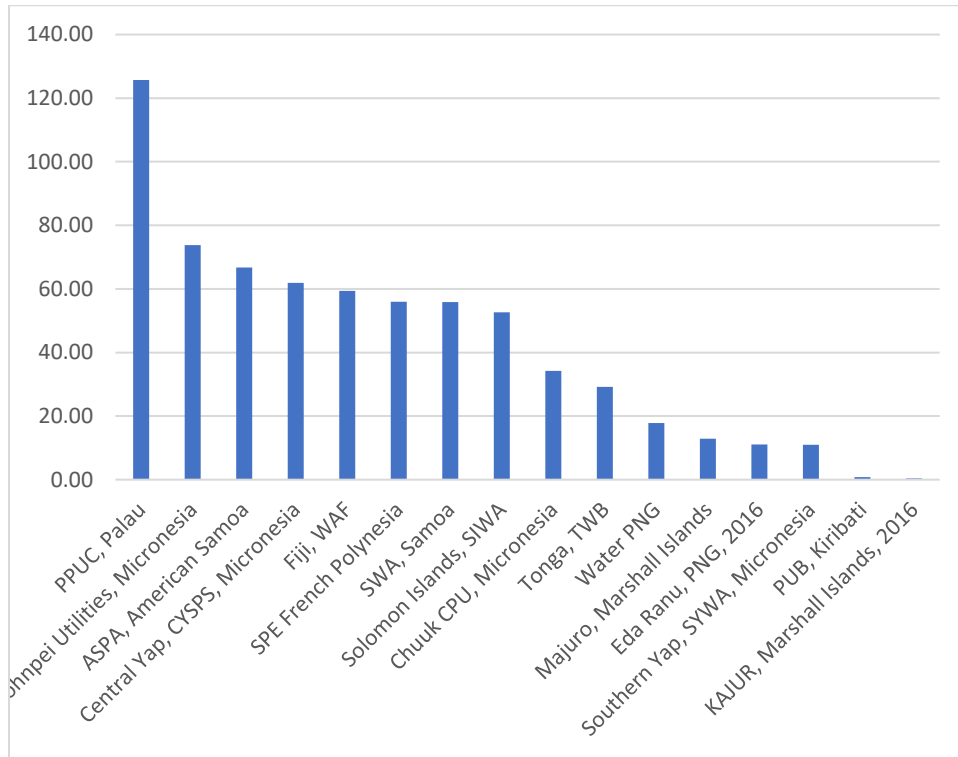
Very high UFW reported from Kosrae, FMS, PUB, Kiribati, CU, Northern Marianas and Chuuk are because a significant proportion of water is delivered to the state authorities that are not billed by their respective water services providers. Generally, these utilities are compensated directly by the state authorities for the services provided.

### 6. Consumption pattern

Residential consumption constitutes nearly 50 percent of total consumption for all PWWA utilities. Eight utilities reported consumption below the WHO recommended level of 50 lpcd in 2017. In Kiribati and KAJUR, Marshall Islands, residential consumption is below five liters per capita a day. The latter likely suggests that the population uses alternative sources of water including from private wells or rainwater collection.

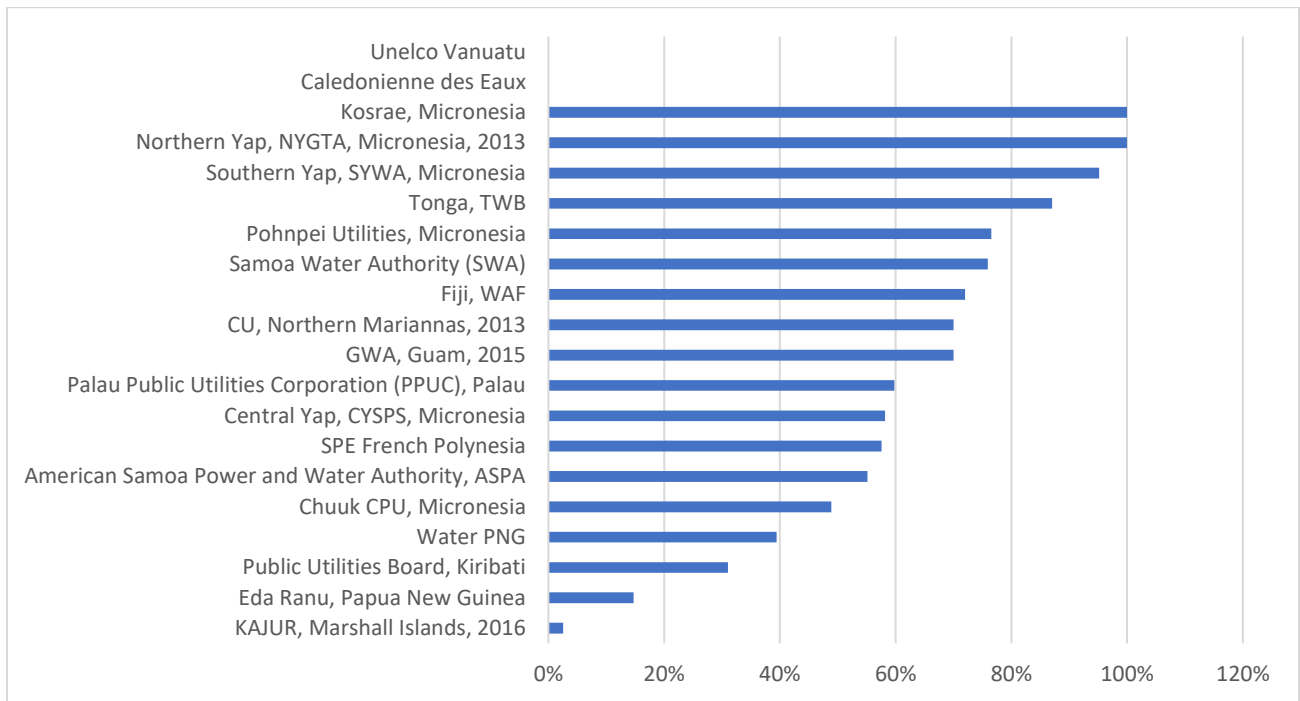
In many cases, industrial supply is a major source of income for utilities as industrial tariffs are higher than residential in almost every PWWA utility.

**Fig. 7 Residential consumption, lpcd**



Percentage-wise, the residential consumption as a percentage of total significantly varies among utilities as presented in Fig.8.

**Fig.8 Residential consumption as percentage of total**



\*Unelco Vanuatu, and CDE, New Caledonia did not provide full information for this indicator

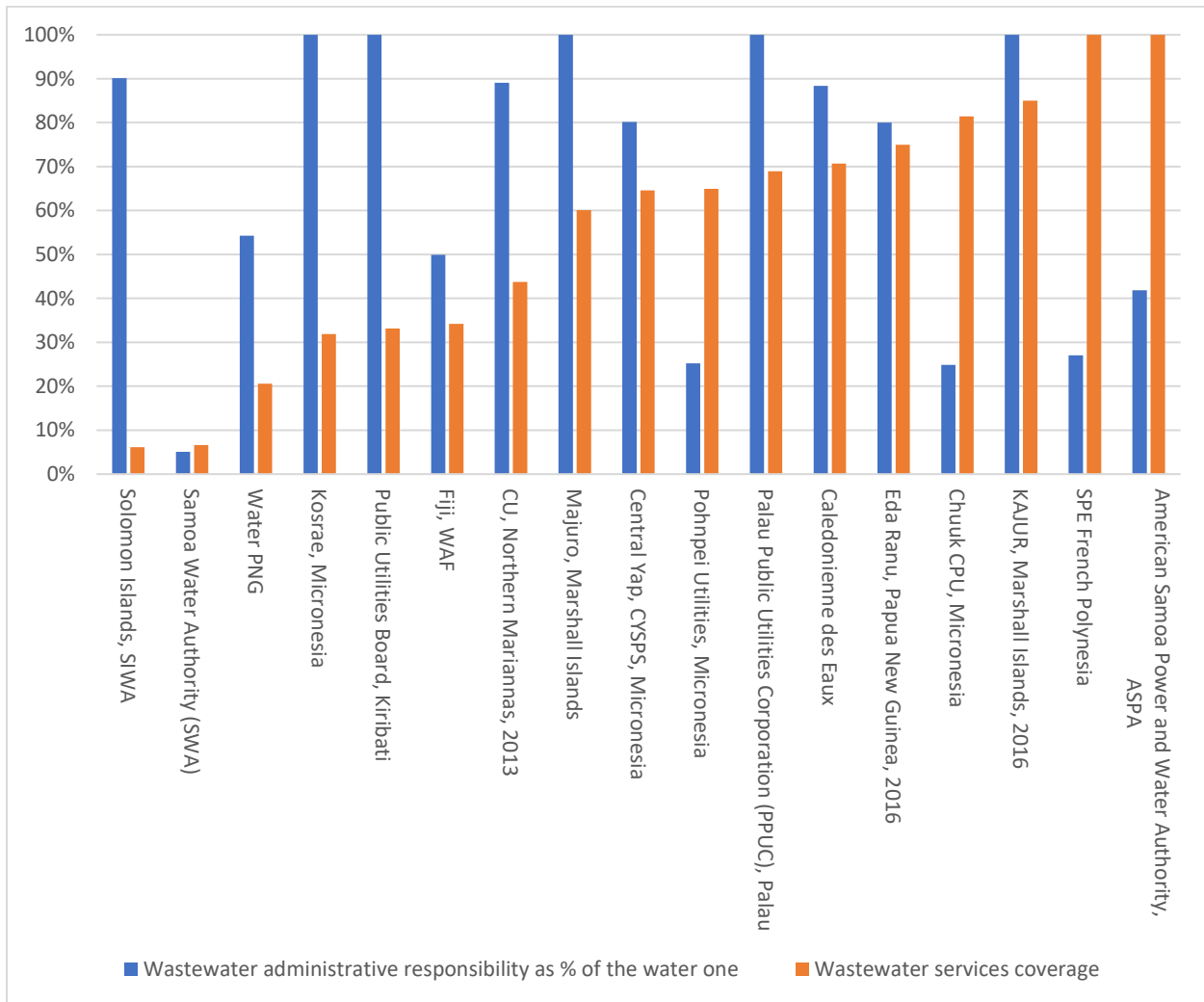
### Electricity consumption

In many utilities, water is produced using intensive electricity consumption. This is particularly the case for KAJUR, Marshall Islands, where a significant proportion of water is produced by desalination. It needed 34.4 kWh to produce one cubic meter of water. More than one kWh electricity per cubic meter is needed in American Samoa, Palau and Central Yap utilities.

### 7. Wastewater services

Wastewater services are provided by 17 PWWA members. It is important to note that the area for water and wastewater responsibility do not coincide and wastewater service zones are substantially smaller than the areas for water provision, and usually cover the largest city only. These zones can match as it happens for utilities in Kiribati, FS Micronesia, Marshall Islands and SIWA, Solomon Islands. However, generally, wastewater coverage reflects services within only wastewater services zone, and not for the utility operations areas. Fig 9 present PWWA wastewater administrative areas and sewerage services coverage.

**Fig. 9 PWWA Wastewater services**

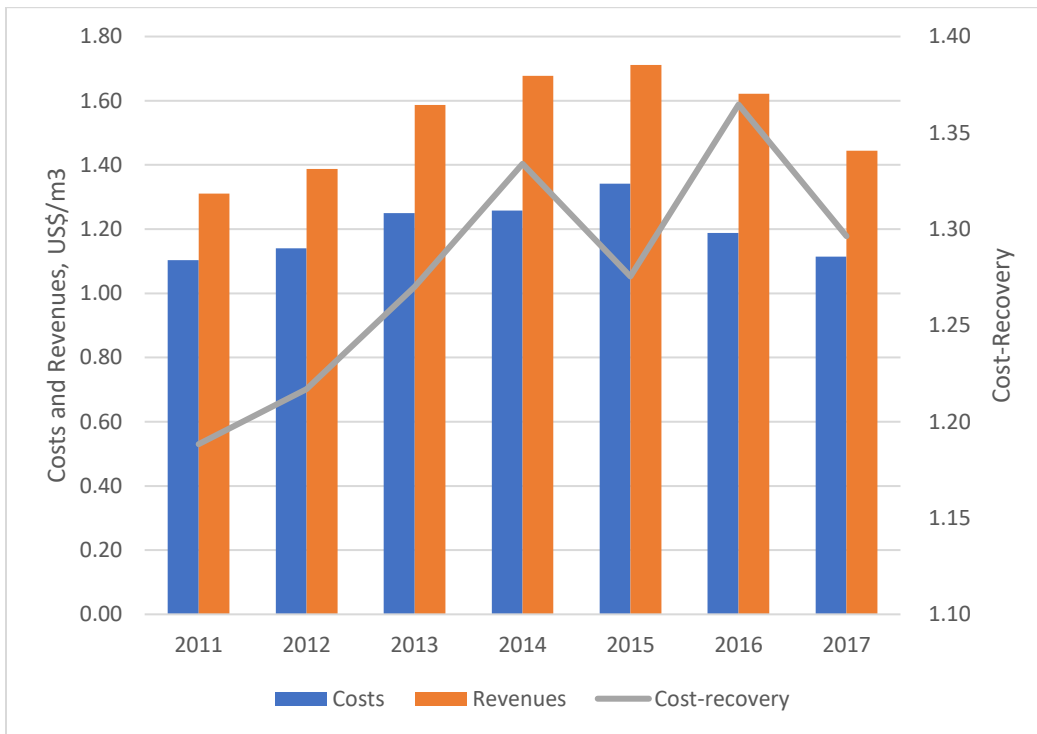


Twelve utilities of 20 providing wastewater services treat the collected wastewater. ASPA American Samoa and Water PNG and PUB Kiribati provide mainly primary treatment (PUB Kiribati did not report wastewater treatment in 2017). WAF Fiji, CU Northern Mariana, SWA Samoa, Caledonienne-des-Eaux and Polynesienne-des-Eaux do employ secondary and advanced treatment with nutrient removal. Small utilities from Micronesia also treat all collected wastewater. The rest of PWWA utilities with wastewater collection services, discharge wastewater through sea outfalls.

**8. Costs revenues and cost recovery**

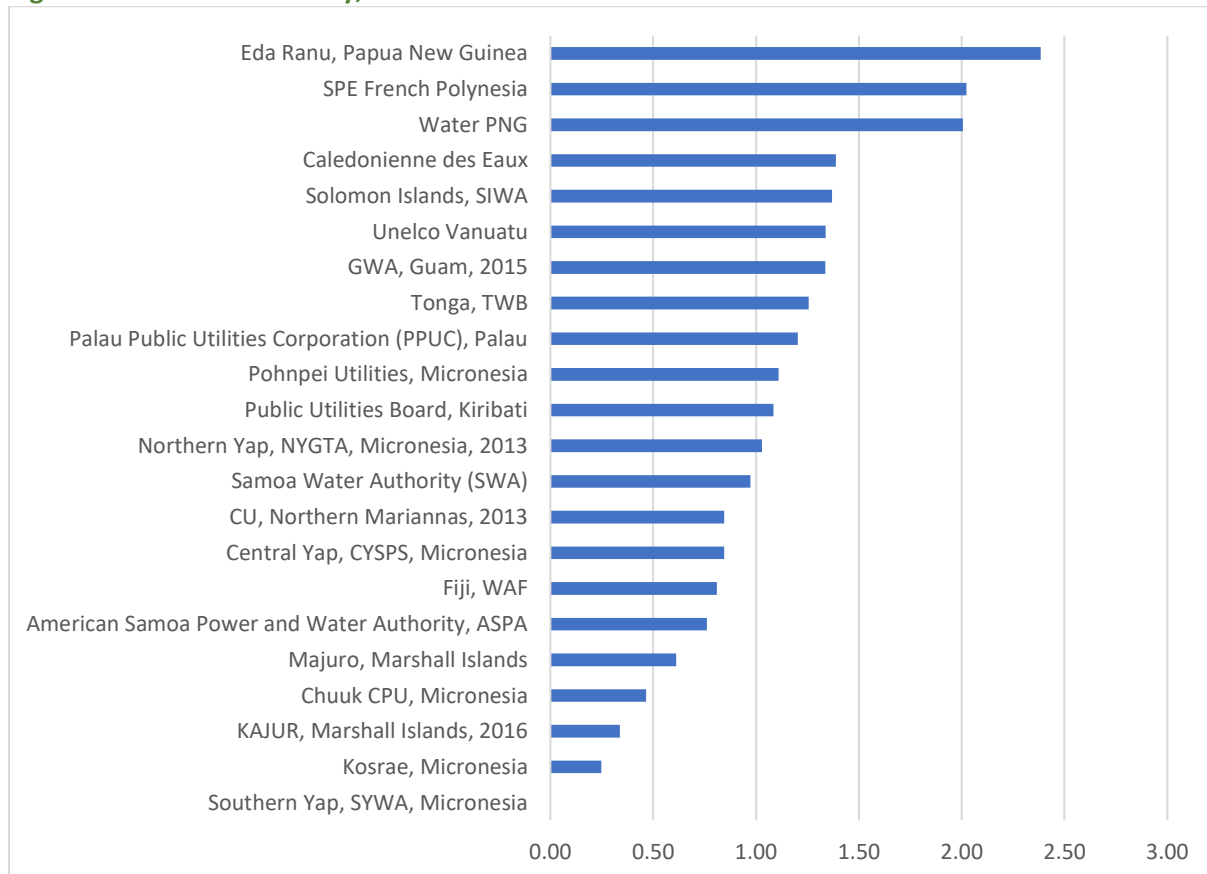
Overall cost recovery is stable ranging from 1.20 to 1.35 during the last seven years. Variation of the average costs and revenues reflects mainly the local currency fluctuation against the dollar rather than reduction of costs and revenues.

**Fig. 10 PWWA Average costs and revenues**



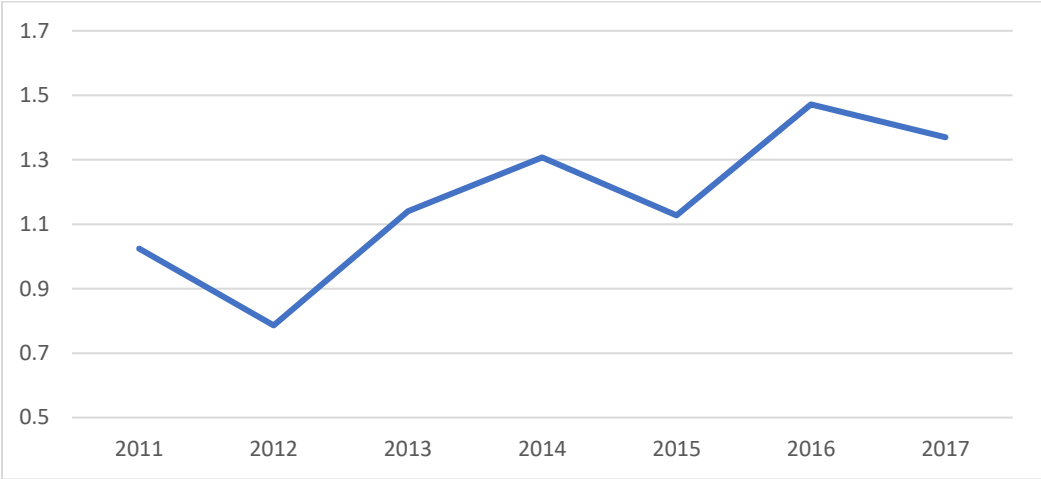
Individual utilities costs and revenues are presented below. Utilities of the PWWA Northern Chapter have substantial difficulty in cost recovery.

**Fig.11 PWWA Cost-Recovery, 2017**



Companies in both Papua New Guinea and Polynésie-des-Eaux reported high levels of cost recovery in the range of 200 percent and above. Impressive progress was made by SIWA, Solomon Islands compared to 2012 when its cost recovery fell below 70 percent. WAF, Fiji could increase cost recovery by 20 percent in 2017. 18 of 22 PWWA utilities get direct financial transfers from their authorities to balance operational costs (Please see Chapter 12 for details).

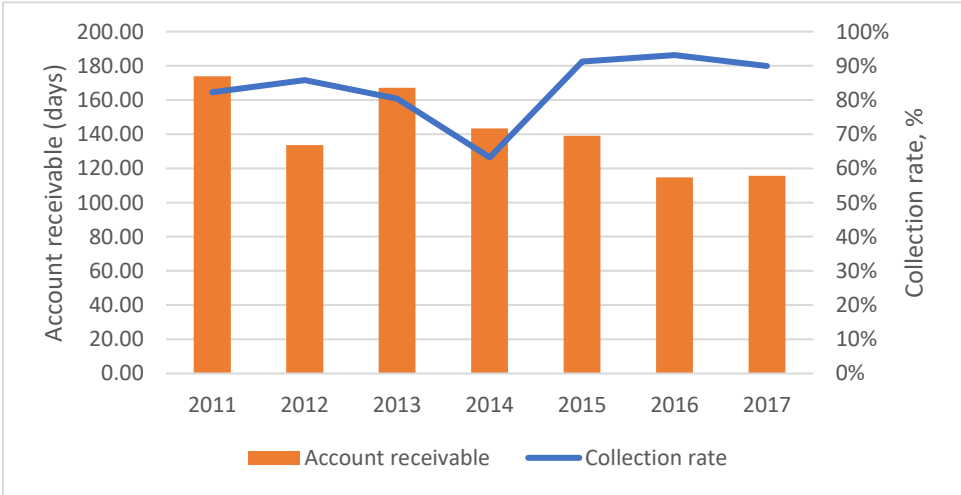
**Fig 12 SIWA, Solomon Islands cost recovery**



**9. Collection rate and account receivable**

Overall, collection rate improves for PWWA along with reduction of the account receivables.

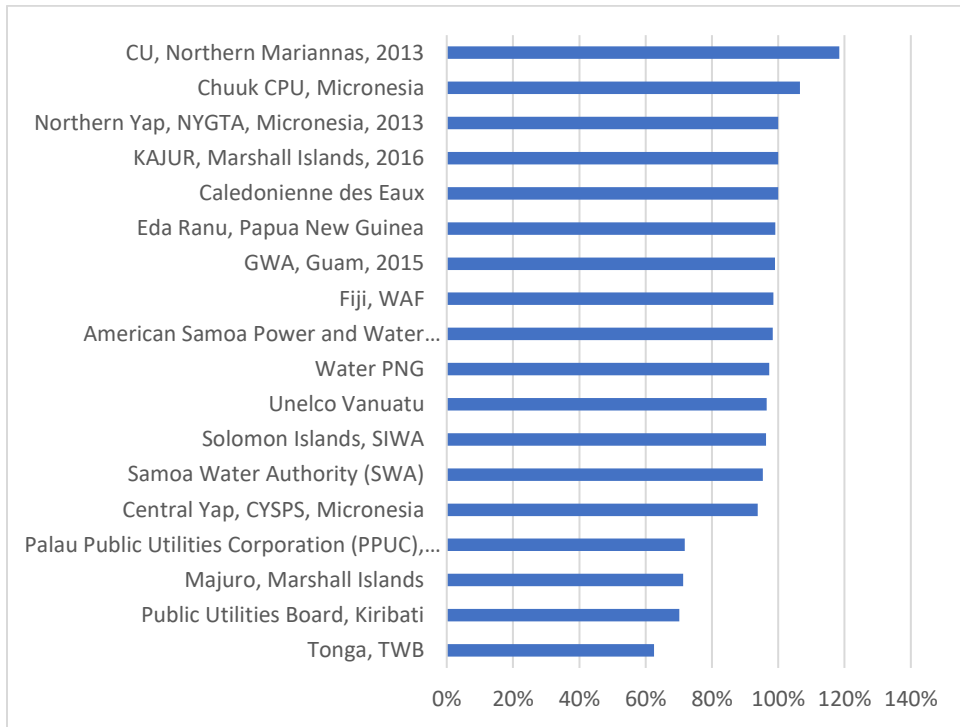
**Fig. 13 PWWA collection and account receivable\***



\*GWA Guam and CU of Northern Mariana Islands did not provide required information for account receivable



**Fig. 14 Collection rate of PWWA utilities (2017)**



\*Missing utilities did not provide complete information for analysis

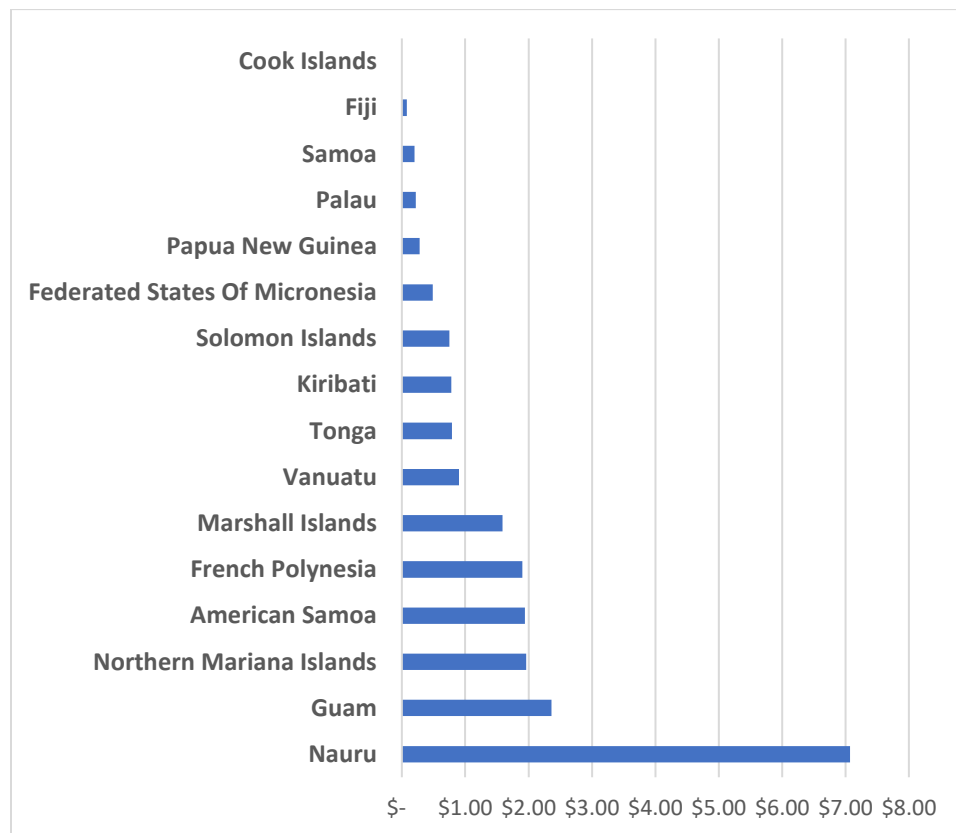
## 10. Water tariffs

Water tariffs were collected directly from the websites of PWWA utilities. The reported tariffs vary significantly among utilities and between countries. For example, Cook Islands have no charges for water, while Nauru has one of the highest tariffs in the world. PUB Kiribati does not collect revenues from residential customers. Instead it is compensated for its services by the national government according to metered consumption.

Water tariffs are generally based on metering. The majority of utilities employ Increased-Block tariff (IBT) systems. The tariff analysis of the IBT for selected utilities is provided in the respective utility profiles in the last chapter of this report.

In French Polynesia and in Tonga, the tariffs are set for individual municipalities, and not for entire service like it is in the rest of the PWWA utilities.

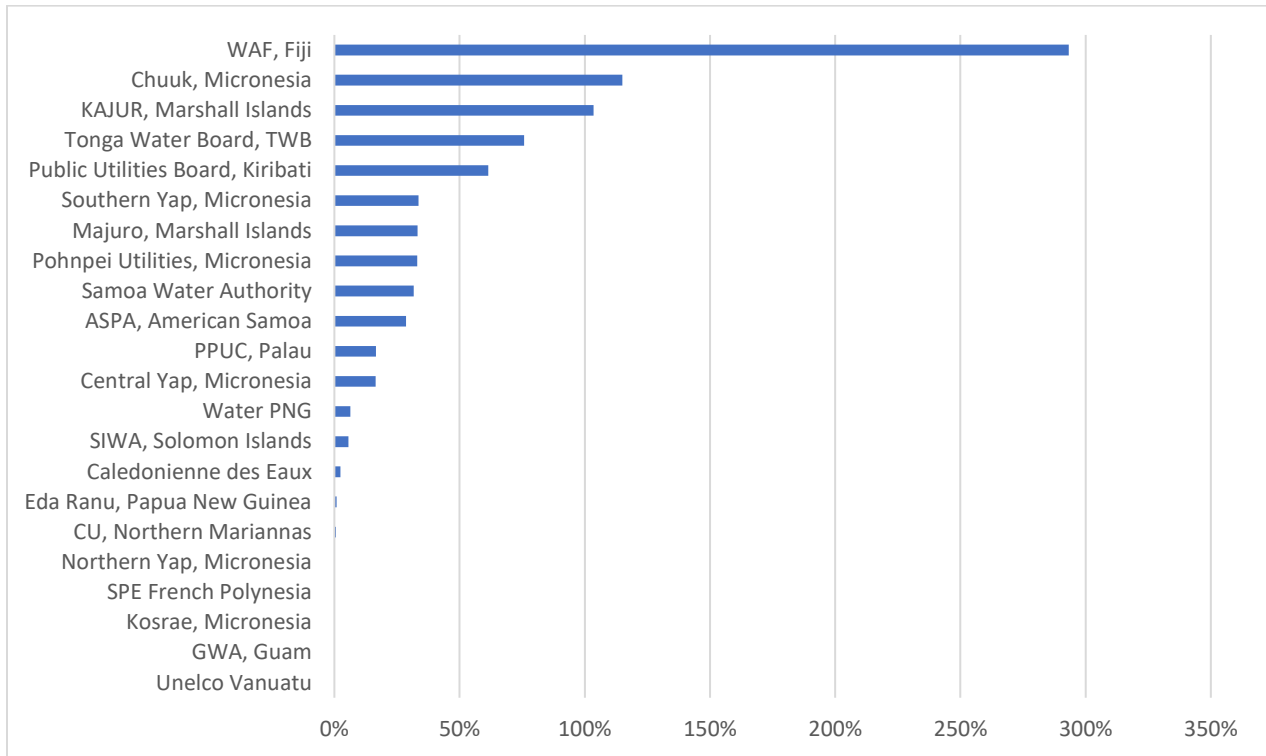
**Fig. 15 Average water tariffs per cubic meter (for consumption of 15 m<sup>3</sup> per connection a month)**



## 11. Direct financial transfers to utilities

Direct financial transfers from the Government or municipal administration were reported by every PWWA utility in the last seven years, except Polynésienne-des-Eaux, Unelco Vanuatu, GWA Guam, Kosrae and Northern Yap, both in the Federated States of Micronesia. Transfers are used for covering the financial balance in many cases, but in cases of WAF Fiji, Chuuk Micronesia, KAJUR Marshall Islands, and PUB Kiribati such transfers are also spent on investments and expansion of service coverage and infrastructure of the respective utilities.

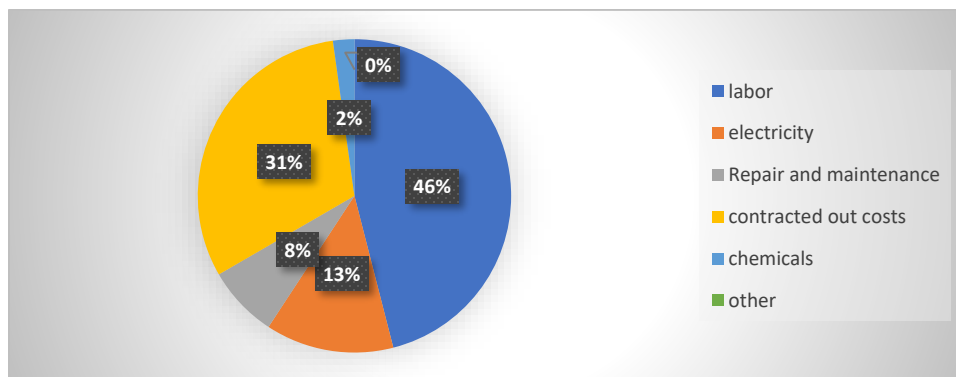
**Fig.16 Average annual financial transfers to a PWWA utility as a percentage of average O&M costs**



**12. PWWA utilities cost structure**

Labor cost remains the largest cost item for PWWA, followed by contracted out costs and electricity. High labor proportion of costs is mainly related to the complexity of the water and wastewater systems in each of the PWWA utility.

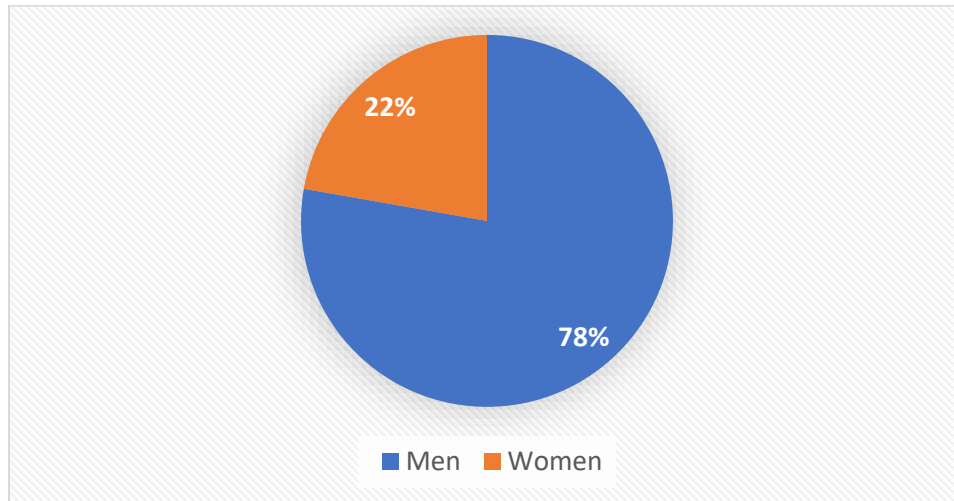
**Fig. 17 PWWA cost structure**



**13. Female participation**

In 2017, PWWA staff employed 877 women of which 52 had engineering positions.

**Fig. 18 PWWA gender composition**



In Kosrae all staff are women, followed by Fiji with 36 percent staff as women. Figure 20 presents percentage of female personnel in utilities.

**Fig. 19 Percentage of the female staff in PWWA utilities workforce**

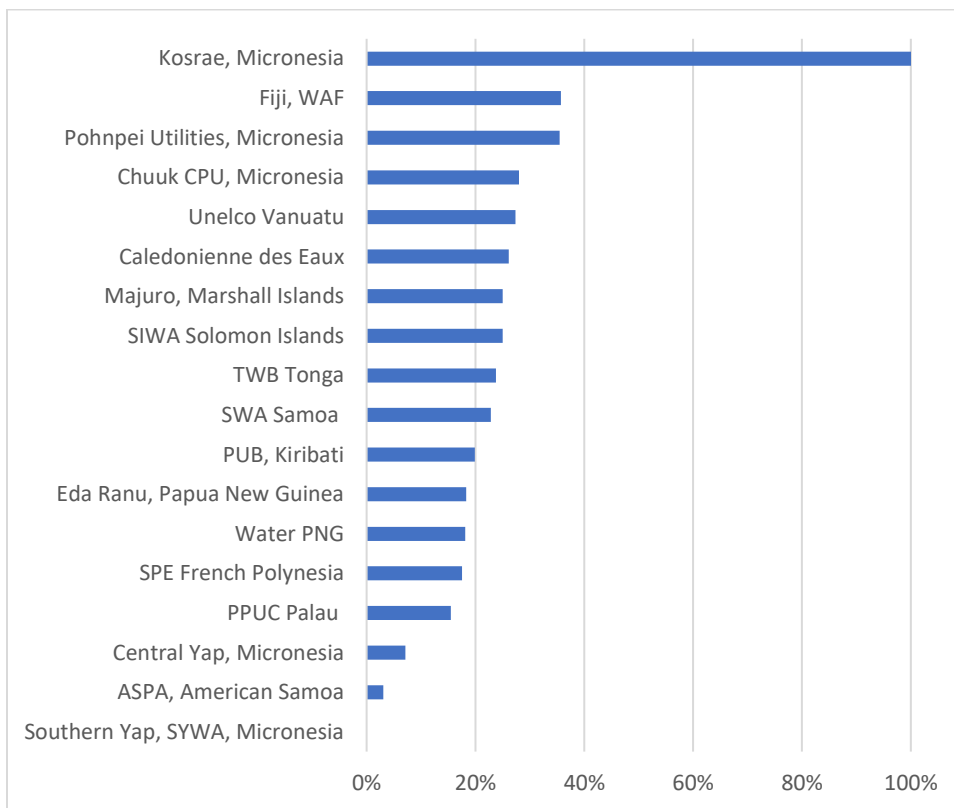
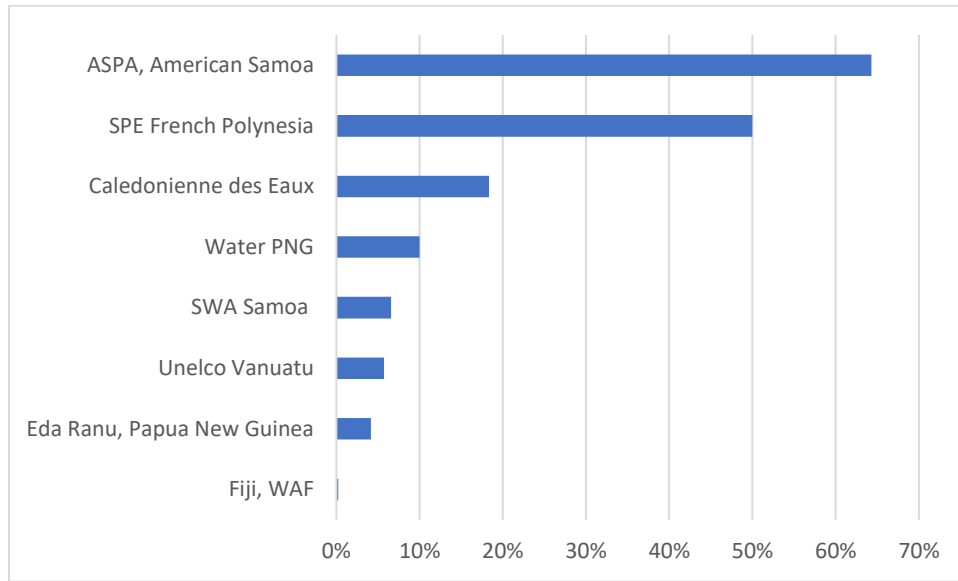


Figure 20 presents percentage of women with engineering positions within PWWA utilities.

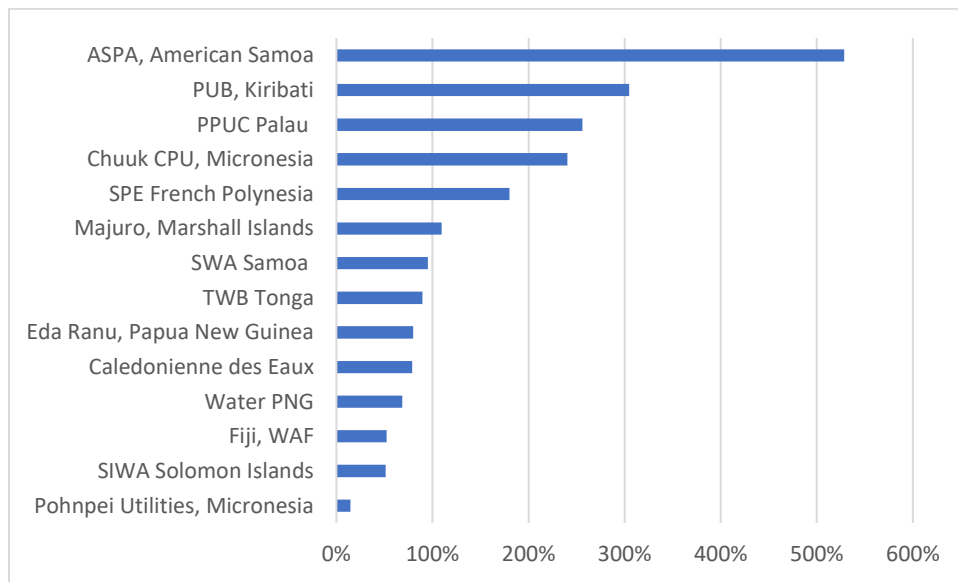
**Fig 20. Percentage of women – engineers \***



\*Other utilities did not report women – engineers

Female staff is better paid than the male staff as women are usually placed in higher paid positions as presented in graph 22.

**Fig. 22 Female staff pay as percentage of male one\***



\* In Kosrae all staff is female

## 14. Conclusions

1. PWWA utilities are fully capable of collecting data in a standard and systematic way. Information is available on most of the technical and financial parameters. However, there seems to be lack of incentive or drive among the utilities and the decision-makers to pursue this practice on a regular basis. PWWA is ready to help.
2. Data quality remains an issue, however this can be managed as the vast majority of utilities are reporting their information consistently from year to year and within the sample of all PWWA reports. Further standardization of reporting and establishment of data quality accreditation will allow substantial improvement in data quality. It is important to help utilities with data quality and analyze the current reporting system and adjust for PWWA utilities' needs.
3. It is important to make use of utilities' performance results for mid- and long-term planning and strategy development and investment planning. PWWA will communicate with its members and agree on this activity.
4. Improvement of water supply services by utilities remains a risk due to accelerated urbanization, especially in large utilities of Fiji and Papua New Guinea. Utilities try to cope with growing demand due to accelerated urbanization, however investment is not keeping up with the increasing demand.
5. Water providers of small islands have significant issues with production capacity that forces them to reduce hours of operations or switch to costly desalination. Many of them practice intermittent supply that further contributes to pipe breaks and accelerated depreciation of water systems, which are already not in a good shape.
6. Many PWWA utilities have prohibitively high losses.
7. Tariffs are in the range of US\$0.5-1.0 for the majority of utilities, except Cook Islands, where water is free of charge and in Nauru, where tariffs are in the range of US\$7-10 per m<sup>3</sup> depending on consumption. These rates, however, are not enough to significantly expand water services, and especially wastewater services. From our exercise it is also not clear who is finally in charge of the tariff setting and approval and it seems that utilities have limited power to influence tariffs, as tariffs have not changed in the last few years in the majority of cases.
8. Collection rate and accounts receivables can be addressed.
9. PWWA is ready to support performance assessment of its utilities and call for all PWWA members to participate in 2018 data collection.

**Utilities profiles**

**American Samoa Power Authority, ASPA (American Samoa) Utility Type: Water department of a combined utility**

	2011	2012	2013	2014	2015	2016	2017
<b>Service</b>							
1.1 - Water Coverage (%)	100.00%	100.00%	100.00%	100.00%	96.36%	96.36%	96.36%
40 - Population served, water	50,500.00	50,500.00	50,500.00	52,000.00	53,000.00	53,000.00	53,000.00
2.1 - Sewerage Coverage (%)	41.82%	41.82%	100.00%	100.00%	100.00%	100.00%	100.00%
70- Population served, sewerage	23,000.00	23,000.00	23,000.00	23,000.00	23,000.00	23,000.00	23,000.00
15.1 Hours of operations (hours a day)	24.00	24.00	24.00	24.00	24.00	24.00	24.00
4.1 - Total Water Consumption (liters/person/day)	343.82	331.67	338.89	326.84	336.27	351.54	331.75
4.7 - Residential Consumption (liters/person/day)	210.85	196.88	188.32	181.19	182.86	183.02	182.86
<b>Technical performance</b>							
6.1 - Non- Revenue Water (%)	62.60%	65.38%	65.00%	67.24%	62.34%	59.50%	62.33%
6.2 - Non- Revenue Water (m3/km/day)	139.03	151.31	152.11	162.98	61.1	55.94	59.47
9.1 - Pipe Breaks (breaks/km/yr)	9.8	10.02	10.75	10.91	4.95	6.16	6.75
8.1 - Water sold that is metered % (%)	100.00%	100.00%	100.00%	66.76%	100.00%	100.00%	100.00%
<b>Financial performance</b>							
18.1 - Average Revenue W&WW (US\$/m3 water sold)	1.43	1.83	1.84	1.81	1.71	1.61	1.76
11.1 - Unit Operational Cost Water and Wastewater (W&WW) (US\$/m3 sold)	1.94	2.04	2.28	2.41	2.3	2.1	2.31
24.1 - Operating Cost Coverage (ratio)	0.74	0.9	0.81	0.75	0.74	0.77	0.76
23.1 - Collection Period (days)	37.44	37.83	41.01	38.89	39.64	32.39	37.75
23.2 - Collection ratio (%)	90.42%	93.76%	97.88%	94.97%	100.00%	96.71%	98.30%
<b>Staffing</b>							
Total number of staff				470.0	95.0	434.0	455.0
- including female					13.0	12.0	14.0
12.3 - Staff Water/000 Water pop served (#/000 W pop served)				1.42	0.98	1.26	1.0



**ASPA residential tariffs (water)**

Type of tariff: IBT

<b>Water</b>	<b>Consumption m3 per connection per month</b>	<b>Tariff (USD per m3)</b>
1st Block	to 37.85	0.74
2nd Block	37.86 to 75.71	0.87
3rd Block	75.72 to 113.56	1.01
4th Block	113.57 And More	1.14
<b>Other Charges</b>	<b>Charge (USD)</b>	<b>Charge (USD)</b>
Fixed Charge (USD/Mo)	14.62	14.62
Other Volumetric Charges (USD/gal)	0.00064	0.00064

**Consumption distribution, %**

	<b>2016</b>	<b>2017</b>
1st Block	75.36	77.90
2nd Block	7.68	5.06
3rd Block	5.31	3.71
4th Block	11.65	13.32

**Ncd Water & Sewerage Ltd Trading as Eda Ranu (Papua New Guinea). Self-standing water and wastewater company. Concession**

	2011	2012	2013	2014	2015	2016	2017
<b>Service</b>							
1.1 - Water Coverage (%)	100%	100%	100%	100%	100%	100%	100%
40 - Population served, water	450,000	461,250	472,781	484,601	496,716	509,134	521,862
2.1 - Sewerage Coverage (%)	100%	100%	100%	100%	100%	100%	100%
70- Population served, sewerage	130,000	133,250	136,581	139,996	143,496	147,083	150,760
15.1 Hours of operations (hours a day)	24	24	24	24	24	24	24
4.1 - Total Water Consumption (liters/person/day)	141	149	145	141	221	201	203
4.7 - Residential Consumption (liters/person/day)	30	29	29	30	31	30	30
<b>Technical performance</b>							
6.1 - Non Revenue Water (%)	59%	54%	56%	59%	35%	40%	41%
6.2 - Non Revenue Water (m3/km/day)	214	189	205	226	98	108	118
9.1 - Pipe Breaks (breaks/km/yr)	2.37	4.71	4.45	4.93	4.17	3.13	2.56
10.1 - Sewer System Blockages (blockages/km/yr)	4.86	4.84	3.22	3.47	3.58	5.00	3.35
8.1 - Water sold that is metered % (%)	100%	100%	100%	100%	100%	100%	100%
<b>Financial performance</b>							
18.1 - Average Revenue W&WW (US\$/m3 water sold)	1.72	1.87	1.8	1.87	1.03	0.89	0.95
11.1 - Unit Operational Cost Water and Wastewater (W&WW) (US\$/m3 sold)	0.28	0.29	0.28	0.4	0.44	0.55	0.4
24.1 - Operating Cost Coverage (ratio)	6.04	6.42	6.39	4.65	2.37	1.62	2.38
23.1 - Collection Period (days)	136	98	119	127	135	173	151
23.2 - Collection ratio (%)	100%	100%	100%	96%	96%	100%	99%
<b>Staffing</b>							
36 - Total number of staff	190	207	245	252	261	259	262
121 - including female					43	46	48
12.3 - Staff Water/000 Water pop served (#/000 W pop served)	0.37	0.4	0.45	0.45	0.21	0.21	0.2

**Eda Ranu, PNG, residential tariffs (water)**

Type of tariff: IBT

Water	Consumption m3 per Month	Tariff (USD per m3)	Tariff (PGK per m3)
1st Block	to 15	0.32	1
2nd Block	15.01 to 50	0.38	1.2
3rd Block	50.01 to 75	0.63	2
4th Block	75.01 to 100	1.08	3.4
5th Block	100.01 to 150	1.38	4.35
<b>Other Charges</b>	<b>Charge (USD)</b>	<b>Charge (PGK)</b>	
Other Fixed Charges (USD/Mo)	1.59	5	
Other Percentage Charges (%)	10	10	

**Consumption distribution**

1st Block	66.75
2nd Block	14.30
3rd Block	5.11
4th Block	3.60
5th Block	10.24

**PNG Water, Papua New Guinea**

	2011	2012	2013	2014	2015	2016	2017
<b>Service</b>							
1.1 - Water Coverage (%)	75.05%	71.19%	72.45%	69.62%	63.72%	63.90%	87.57%
40 - Population served, water	212,800	207,664	217,272	214,640	299,395	279,860	416,325
2.1 - Sewerage Coverage (%)	6.40%	6.70%	7.87%	7.49%	10.93%	13.75%	20.61%
70- Population served, sewerage	18,144	19,544	23,600	23,104	24,256	30,560	53,188
15.1 Hours of operations (hours a day)	24.0	24.0	24.0	24.0	24.0	24.0	24.0
4.1 - Total Water Consumption (liters/person/day)	199.56	199.09	183.51	193.74	147.8	153.09	123.54
4.7 - Residential Consumption (liters/person/day)				75.03	58.59	58.53	48.74
<b>Technical performance</b>							
6.1 - Non Revenue Water (%)	37.50%	39.45%	35.87%	44.74%	36.34%	40.14%	30.99%
6.2 - Non Revenue Water (m3/km/day)	42.18	43.74	35.48	53.56	39.93	45.33	34.37
9.1 - Pipe Breaks (breaks/km/yr)	1.39	1.89	1.43	1.06	0.83	0.84	0.71
10.1 - Sewer System Blockages (blockages/km/yr)	0.04	0.04	0.04	0.04	0.22	0.23	0.36
8.1 - Water sold that is metered % (%)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
<b>Financial performance</b>							
18.1 - Average Revenue W&WW (US\$/m3 water sold)	1.37	1.06	2.84	2.26	1.92	1.86	1.73
11.1 - Unit Operational Cost Water and Wastewater (W&WW) (US\$/m3 sold)	1.3	1.72	1.61	1.85	1.01	0.99	0.86
24.1 - Operating Cost Coverage (ratio)	1.05	0.62	1.76	1.22	1.91	1.88	2.01
23.1 - Collection Period (days)	392.38	661.32	243.89	317.33	365.0	102.6	84.92
23.2 - Collection ratio (%)	9.21%	13.65%	5.58%	94.05%	92.42%	89.00%	97.27%
<b>Staffing</b>							
Total number of staff	378	365	370	411	411	353	331
- including female					75	75	60
12.3 - Staff Water/000 Water pop served (#/000 W pop served)				1.31	0.53	0.56	0.69

**PNG-Water, Papua New Guinea, residential tariffs (water)**

Type of tariffs IBT

Water	Consumption m3 per Month	Tariff (USD per m3)	Tariff (PGK per m3)
1st Block	to 20	0.09	0.3
2nd Block	20.01 to 40	1.46	4.8
3rd Block	40.01 to 100	1.55	5.1
4th Block	100.01 And More	1.75	5.77
VAT	10%		

**Consumption distribution, %**

1st Block	78.29
2nd Block	5.87
3rd Block	8.00
4th Block	7.84

**SIWA, Solomon Islands. Self-standing water and wastewater company**

IWSA, Solomon Islands	2011	2012	2013	2014	2015	2016	2017
Service							
1.1 - Water Coverage (%)	87.48%	71.25%	69.87%	66.79%	55.25%	61.64%	55.41%
40 - Population served, water	66,780	55,860	56,252	55,230	50,365	72,303	64,817
2.1 - Sewerage Coverage (%)	11.15%	10.27%	9.20%	10.68%	9.09%	6.23%	6.13%
70- Population served, sewerage	7,400	7,000	6,440	7,677	6,888	6,377	6,461
15.1 Hours of operations (hours a day)	8.0	14.0	14.2	18.0	22.0	22.6	23.4
4.1 - Total Water Consumption (liters/person/day)	184.62	207.86	206.57	209.49	258.44	193.91	212.36
4.7 - Residential Consumption (liters/person/day)		145.12	135.68	131.7	177.16	129.29	144.24
Technical performance							
6.1 - Non Revenue Water (%)	51.87%	55.58%	57.80%	58.35%	62.22%	57.79%	62.71%
6.2 - Non Revenue Water (m3/km/day)	54.4	58.74	63.66	57.94	67.72	74.5	71.51
9.1 - Pipe Breaks (breaks/km/yr)	1.93	2.01	2.07	2.66	2.55	14.33	1.61
10.1 - Sewer System Blockages (blockages/km/yr)				5.19	6.66	11.8	19.86
8.1 - Water sold that is metered % (%)	58.22%	71.97%	67.20%	75.00%	99.42%	100.00%	94.89%
Financial performance							
18.1 - Average Revenue W&WW (US\$/m3 water sold)	0.90	0.91	1.61	2.18	2.62	2.07	2.28
11.1 - Unit Operational Cost Water and Wastewater (W&WW) (US\$/m3 sold)	0.88	1.16	1.41	1.67	2.32	1.41	1.66
24.1 - Operating Cost Coverage (ratio)	1.02	0.79	1.14	1.31	1.13	1.47	1.37
23.1 - Collection Period (days)	196.68	404.98	295.02	255.33	146.24	150.3	143.49
23.2 - Collection ratio (%)	62.95%	94.39%	92.04%	100.00%	84.15%	100.00%	96.33%
Staffing							
36 -Total number of staff	100	101	118	144	147	125	136
121 - including female					29	28	34
12.3 - Staff Water/000 Water pop served (#/000 W pop served)				1.05	2.79	1.12	1.31

**SIWA, Solomon Islands, residential tariffs (water)****Type of tariffs - IBT**

<b>Water</b>	<b>Consumption m3 per Month</b>	<b>Tariff (USD per m3)</b>	<b>Tariff (SBD per m3)</b>
1st Block	to 15	0.73	5.79
2nd Block	15.01 to 30	1.1	8.77
3rd Block	30.01 And More	1.29	10.25

**Consumption distribution, %**

1st Block	84.64
2nd Block	0.22
3rd Block	15.14



**Samoa Water Authority, SWA. Self-standing water and wastewater company**

	2011	2012	2013	2014	2015	2016	2017
Service							
1.1 - Water Coverage (%)	95.70%	87.91%	87.51%	81.09%	80.62%	81.67%	76.57%
40 - Population served, water	137,812	141,090	140,460	130,155	129,400	159,171	150,199
2.1 - Sewerage Coverage (%)	0.00%	0.00%	1.00%	1.00%	6.47%	6.50%	6.60%
70- Population served, sewerage	-	-	100	100	647	650	660
15.1 Hours of operations (hours a day)	24.0	24.0	24.0	24.0	24.0	24.0	24.0
4.1 - Total Water Consumption (liters/person/day)	117.49	153.4	156.04	181.03	204.31	197.58	201.66
4.7 - Residential Consumption (liters/person/day)	32.4	36.78	35.46	36.66	42.32	35.83	32.85
Technical performance							
6.1 - Non Revenue Water (%)	70.02%	66.38%	70.37%	67.42%	62.11%	58.98%	53.81%
6.2 - Non Revenue Water (m3/km/day)	54.01	44.2	48.2	46.62	37.62	38.64	30.67
9.1 - Pipe Breaks (breaks/km/yr)	2.14	2.17	1.13	1.22	0.88	0.82	0.77
10.1 - Sewer System Blockages (blockages/km/yr)	0.0	0.0	0.0	63.82	36.29	21.62	27.77
8.1 - Water sold that is metered % (%)	64.97%	93.67%	93.75%	100.00%	100.00%	89.00%	97.00%
Financial performance							
18.1 - Average Revenue W&WW (US\$/m3 water sold)	0.85	0.78	0.77	0.69	1.07	0.58	0.67
11.1 - Unit Operational Cost Water and Wastewater (W&WW) (US\$/m3 sold)	1.01	0.37	1.01	0.86	0.85	0.64	0.69
24.1 - Operating Cost Coverage (ratio)	0.84	2.12	0.76	0.81	1.26	0.9	0.97
23.1 - Collection Period (days)	245.03	163.99	153.62	116.34	52.16	59.3	69.59
23.2 - Collection ratio (%)	84.23%	74.79%	84.84%	87.52%	59.01%	99.08%	95.33%
Staffing							
36 -Total number of staff	171	204	235	249	254	252	267
121 - including female					54	51	61
12.3 - Staff Water/000 Water pop served (#/000 W pop served)			1.67	1.91	1.95	1.58	1.77

**SWA, Samoa residential tariffs, residential tariffs (water)**

**Type of tariff - IBT**

Water	Consumption m <sup>3</sup> per Month	Tariff (USD per m <sup>3</sup> )	Tariff (WST per m <sup>3</sup> )
1st Block	to 15	0.21	0.5
2nd Block	15.01 to 40	0.59	1.4
3rd Block	40.01 And More	0.81	1.9

**Consumption distribution, %**

1st Block	84.00
2nd Block	6.01
3rd Block	9.99

**WAF, Water Authority of Fiji. Self-standing water and sanitation company.**

	2011	2012	2013	2014	2015	2016	2017
Service							
1.1 - Water Coverage (%)	100.00%	100.00%	100.00%	100.00%	99.58%	99.31%	96.66%
40 - Population served, water	722,500	734,375	745,125	758,220	761,805	774,580	855,300
2.1 - Sewerage Coverage (%)	48.93%	86.67%	66.28%	66.98%	51.15%	35.31%	34.19%
70- Population served, sewerage	50,400	130,000	132,560	137,310	155,170	153,885	151,100
15.1 Hours of operations (hours a day)	20.0	24.0	19.0	20.0	20.0	20.0	22.0
4.1 - Total Water Consumption (liters/person/day)	240.87	204.73	206.76	203.84	206.1	236.98	226.06
4.7 - Residential Consumption (liters/person/day)	168.15	140.71	144.21	141.9	162.26	175.72	162.76
Technical performance							
6.1 - Non Revenue Water (%)	39.51%	50.91%	50.10%	50.72%	51.49%	45.39%	47.85%
6.2 - Non Revenue Water (m3/km/day)	35.51	47.93	41.91	41.94	42.24	39.2	44.72
9.1 - Pipe Breaks (breaks/km/yr)	7.3	1.31	1.31	1.12	1.77	1.45	1.14
10.1 - Sewer System Blockages (blockages/km/yr)	1.28	1.88	1.82	1.79	1.19	1.28	3.75
8.1 - Water sold that is metered % (%)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Financial performance							
18.1 - Average Revenue W&WW (US\$/m3 water sold)	0.22	0.29	0.28	0.28	0.27	0.3	0.32
11.1 - Unit Operational Cost Water and Wastewater (W&WW) (US\$/m3 sold)	0.41	0.36	0.42	0.32	0.40	0.51	0.40
24.1 - Operating Cost Coverage (ratio)	0.54	0.81	0.67	0.89	0.67	0.59	0.81
23.1 - Collection Period (days)	332.5	201.6	316.89	174.01	115.19	327.57	303.7
23.2 - Collection ratio (%)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	98.56%
Staffing							
36 -Total number of staff	1221	1166	1169	1156	1226	1168	1143
121 - including female					114	148	408
12.3 - Staff Water/000 Water pop served (#/000 W pop served)	1.02	0.96	0.95	0.92	1.53	1.37	1.11

**WAF Fiji, residential tariffs (water)**

Type of tariff - IBT

Water	Consumption m <sup>3</sup> per Month	Tariff (USD per m <sup>3</sup> )	Tariff (FJD per m <sup>3</sup> )
1st Block	to 50	0.08	0.15
2nd Block	50.01 to 100	0.22	0.44
3rd Block	100.01 And More	0.41	0.84

**Consumption distribution, %**

1st Block	61.63
2nd Block	15.00
3rd Block	23.37

**SPE Polynésienne des Eaux, French Polynesia. Self-standing water utility. Concession**

	2015	2016	2017
Service			
1.1 - Water Coverage (%)	100.00%	100.00%	100.00%
40 - Population served, water	80,044	86,000	90,608
2.1 - Sewerage Coverage (%)	17.61%	100.00%	100.00%
70- Population served, sewerage	10,788	24,500	24,500
15.1 Hours of operations (hours a day)	24.0	24.0	24.0
4.1 - Total Water Consumption (liters/person/day)	230.39	225.16	266.07
4.7 - Residential Consumption (liters/person/day)	108.61	138.22	153.2
Technical performance			
6.1 - Non Revenue Water (%)	27.47%	27.84%	29.29%
6.2 - Non Revenue Water (m3/km/day)	24.16	25.85	22.47
9.1 - Pipe Breaks (breaks/km/yr)	0.49	1.06	0.72
10.1 - Sewer System Blockages (blockages/km/yr)	0.13	0.21	
8.1 - Water sold that is metered % (%)	63.48%	72.73%	100.00%
Financial performance			
18.1 - Average Revenue W&WW (US\$/m3 water sold)	2.18	2.51	2.91
11.1 - Unit Operational Cost Water and Wastewater (W&WW) (US\$/m3 sold)	2.26	1.22	1.44
24.1 - Operating Cost Coverage (ratio)	0.96	2.05	2.02
23.1 - Collection Period (days)	27.32	10.95	55.26
23.2 - Collection ratio (%)	100.00%	100.00%	100.00%
Staffing			
36 -Total number of staff	30	32	34
121 - including female	114	148	408
12.3 - Staff Water/000 Water pop served (#/000 W pop served)	1.21	1.13	1.18

**SPE French Polynesia residential tariffs.** Each service has its own rate and tariff system. Type of tariff - IBT

**Bora Bora**

Water	Consumption m <sup>3</sup> per Month	Tariff (USD per m <sup>3</sup> )	Tariff (XPF per m <sup>3</sup> )
1st Block	to 10	0.63	69.3
2nd Block	10.01 to 30	1.34	146.64
3rd Block	30.01 to 75	2.82	309.36
4th Block	75.01 to 150	3.79	414.82
5th Block	150.01 to 500	6.59	722.16
6th Block	500.01 And More	7.96	871.82

Other Charges	Charge (USD)	Charge (XPF)
Fixed Charge (USD/Mo)	24.1	2640
Tax (VAT) (%)	5	5

**Moorea**

Water	Consumption m <sup>3</sup> per Bi-Monthly	Tariff (USD per m <sup>3</sup> )	Tariff (XPF per m <sup>3</sup> )
1st Block	to 60	0.47	52
2nd Block	60.01 to 120	0.99	108
3rd Block	120.01 to 240	1.55	170
4th Block	240.01 And More	1.92	210

Other Charges	Charge (USD)	Charge (XPF)
Fixed Charge (USD/Bim)	7.93	868.33
Tax (VAT) (%)	5	5

**Pirae**

Water	Consumption m <sup>3</sup> per quarter	Tariff (USD per m <sup>3</sup> )	Tariff (XPF per m <sup>3</sup> )
1st Block	to 90	0.43	48.25
2nd Block	90.01 to 180	0.86	97.55
3rd Block	180.01 to 360	1.17	133.02
4th Block	360.01 to 720	1.56	177.36
5th Block	720.01 And More	1.65	187.33

Other Charges, quarterly	Charge (USD)	Charge (XPF)
Fixed Charge (USD/quarterly)	45.16	5120
Tax (VAT) (%)	5	5

**Calédonienne-des-Eaux, New Caledonia. Self-standing water and wastewater company, concession**

	2015	2016	2017
Service			
1.1 - Water Coverage (%)	93.90%	93.90%	95.24%
40 - Population served, water	191,000	191,000	193,722
2.1 - Sewerage Coverage (%)	67.31%	67.46%	70.70%
70- Population served, sewerage	121,000	121,272	127,109
15.1 Hours of operations (hours a day)	24.0	24.0	24.0
4.1 - Total Water Consumption (liters/person/day)	288.32	290.6	295.73
4.7 - Residential Consumption (liters/person/day)			
Technical performance			
6.1 - Non Revenue Water (%)	22.69%	20.84%	22.27%
6.2 - Non Revenue Water (m3/km/day)	10.66	9.61	10.61
9.1 - Pipe Breaks (breaks/km/yr)	0.49	1.06	0.72
10.1 - Sewer System Blockages (blockages/km/yr)	0.19	0.19	0.18
8.1 - Water sold that is metered % (%)	100.00%	100.00%	100.00%
Financial performance			
18.1 - Average Revenue W&WW (US\$/m3 water sold)	2.37	2.48	2.35
11.1 - Unit Operational Cost Water and Wastewater (W&WW) (US\$/m3 sold)	1.55	1.66	1.69
24.1 - Operating Cost Coverage (ratio)	1.53	1.49	1.39
23.1 - Collection Period (days)	76.59	42.79	59.92
23.2 - Collection ratio (%)	99.29%	100.00%	100.00%
Staffing			
36 -Total number of staff	51	58	60
121 - including female	241	236	230
12.3 - Staff Water/000 Water pop served (#/000 W pop served)	0.77	0.76	0.72

**Tariffs not available**

**Tonga Water Board, Tonga. Self-standing water company**

<b>Tonga</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Service							
1.1 - Water Coverage (%)	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
40 - Population served, water	58,900	59,375	59,565	59,708	59,760	59,945	59,992
2.1 - Sewerage Coverage (%)							
70- Population served, sewerage							
15.1 Hours of operations (hours a day)	23.0	24.0	22.0	24.0	24.0	24.0	24.0
4.1 - Total Water Consumption (liters/person/day)	117.68	168.88	141.21	117.34	136.71	98.33	91.73
4.7 - Residential Consumption (liters/person/day)					129.54	90.4	79.83
Technical performance							
6.1 - Non Revenue Water (%)	28.93%	25.61%	22.28%	34.71%	25.46%	53.70%	60.70%
6.2 - Non Revenue Water (m3/km/day)	17.1	20.92	14.61	14.88	11.15	26.6	33.08
9.1 - Pipe Breaks (breaks/km/yr)	0.0	1.82	1.52	0.8	0.72	0.64	0.58
10.1 - Sewer System Blockages (blockages/km/yr)							
8.1 - Water sold that is metered % (%)	64.97%	93.67%	93.75%	100.00%	100.00%	89.00%	97.00%
Financial performance							
18.1 - Average Revenue W&WW (US\$/m3 water sold)	1.53	0.59	1.28	1.56	1.15	1.54	1.81
11.1 - Unit Operational Cost Water and Wastewater (W&WW) (US\$/m3 sold)	0.80	0.38	0.72	0.83	0.86	1.16	1.44
24.1 - Operating Cost Coverage (ratio)	1.92	1.57	1.77	1.89	1.34	1.32	1.26
23.1 - Collection Period (days)	52.57	64.42	38.95	53.96	60.27	44.79	21.72
23.2 - Collection ratio (%)	80.83%	100.00%	81.26%	80.87%	84.60%	86.88%	62.57%
Staffing							
36 -Total number of staff	106	101	96	80	82	95	101
121 - including female					20	20	24
12.3 - Staff Water/000 Water pop served (#/000 W pop served)	1.8	1.7	1.61	1.34	1.37	1.58	1.68



**TWB residential tariffs. Tariff type one block metered fee.**

**Tariffs vary by location**

**Neiafu, Vava'u(Tonga)**

<b>Water</b>	<b>Consumption m<sup>3</sup> per Month</b>	<b>Tariff (USD per m<sup>3</sup>)</b>	<b>Tariff (TOP per m<sup>3</sup>)</b>
1st Block	All Consumption levels	0.86	1.92

**Pangai, Ha'apai(Tonga)**

<b>Water</b>	<b>Consumption m<sup>3</sup> per Month</b>	<b>Tariff (USD per m<sup>3</sup>)</b>	<b>Tariff (TOP per m<sup>3</sup>)</b>
1st Block	All Consumption levels	0.85	1.9

**'Eua(Tonga)**

<b>Water</b>	<b>Consumption m<sup>3</sup> per Month</b>	<b>Tariff (USD per m<sup>3</sup>)</b>	<b>Tariff (TOP per m<sup>3</sup>)</b>
1st Block	All Consumption levels	0.54	1.21

**Unelco Vanuatu Limited. Water department of the combined utility.**

Vanuatu Unelco	2011	2012	2013	2014	2015	2016	2017
Service							
1.1 - Water Coverage (%)	60.00%	68.41%	70.09%	70.83%	74.95%	60.89%	69.15%
40 - Population served, water	30,000	30,100	30,869	31,191	33,006	38,186	43,365
2.1 - Sewerage Coverage (%)							
70- Population served, sewerage							
15.1 Hours of operations (hours a day)	24.0	24.0	22.0	24.0	24.0	24.0	24.0
4.1 - Total Water Consumption (liters/person/day)	310.5	306.74	318.22	328.87	343.54	306.0	288.92
4.7 - Residential Consumption (liters/person/day)							
Technical performance							
6.1 - Non Revenue Water (%)	19.81%	21.08%	19.74%	22.36%	18.20%	21.03%	23.85%
6.2 - Non Revenue Water (m3/km/day)	10.75	11.31	10.97	13.39	11.11	13.57	16.92
9.1 - Pipe Breaks (breaks/km/yr)	0.23	0.06	0.8	0.8	0.87	1.32	1.76
10.1 - Sewer System Blockages (blockages/km/yr)							
8.1 - Water sold that is metered % (%)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Financial performance							
18.1 - Average Revenue W&WW (US\$/m3 water sold)	1.0	1.02	1.03	1.04	0.78	0.88	0.97
11.1 - Unit Operational Cost Water and Wastewater (W&WW) (US\$/m3 sold)	0.67	0.72	0.66	0.66	0.63	0.74	0.72
24.1 - Operating Cost Coverage (ratio)	1.5	1.41	1.57	1.58	1.23	1.18	1.34
23.1 - Collection Period (days)	150.64	157.36	157.73	169.39	165.71	158.39	148.87
23.2 - Collection ratio (%)	95.12%	95.49%	95.74%	94.94%	100.00%	98.73%	96.52%
Staffing							
36 -Total number of staff	9	69	122	120	127	127	128
121 - including female					32	33	35
12.3 - Staff Water/000 Water pop served (#/000 W pop served)			0.36	0.42	0.36	0.31	0.28

**Unelco Vanuatu residential tariffs. Type tariffs IBT**

<b>Water</b>	<b>Consumption m<sup>3</sup> per Quarterly</b>	<b>Tariff (USD per m<sup>3</sup>)</b>	<b>Tariff (VUV per m<sup>3</sup>)</b>
1st Block	to 50	0.62	66.72
2nd Block	50.01 to 100	0.81	86.74
3rd Block	100.01 to 200	0.87	93.41
4th Block	200.01 And More	0.94	100.08

<b>Other Charges</b>	<b>Charge (USD)</b>	<b>Charge (VUV)</b>
Fixed Charge (USD/three-month)	12.43	1329

**Consumption break-down not done due to lack of data on residential consumption**

**Majuro Water and Sewer Company (MWSC), Inc. Marshall Islands. Self-standing water company**

	2012	2013	2014	2015	2016	2017
Service						
1.1 - Water Coverage (%)	26.83%	28.52%	18.54%	26.47%	29.29%	29.29%
40 - Population served, water	7,244	7,700	5,007	7,357	8,140	8,140
2.1 - Sewerage Coverage (%)	53.22%	53.21%	55.56%	60.07%	60.07%	60.07%
70- Population served, sewerage	14,370	14,368	15,000	16,695	16,695	16,695
15.1 Hours of operations (hours a day)	4.0	4.0	1.0	4.0	4.0	4.0
4.1 - Total Water Consumption (liters/person/day)	68.08	99.63	139.65	99.1	98.78	97.78
4.7 - Residential Consumption (liters/person/day)	60.51	99.63	139.65	46.66	27.86	35.22
Technical performance						
6.1 - Non Revenue Water (%)	72.31%	45.10%	50.00%	29.56%	33.81%	38.06%
6.2 - Non Revenue Water (m3/km/day)	11.1	5.43	6.03	2.64	3.43	4.22
9.1 - Pipe Breaks (breaks/km/yr)	0.04	0.09		0.6	0.65	0.55
10.1 - Sewer System Blockages (blockages/km/yr)			2.82	1.78	1.54	1.66
8.1 - Water sold that is metered % (%)	88.89%	100.00%	100.00%	93.17%	41.27%	100.00%
Financial performance						
18.1 - Average Revenue W&WW (US\$/m3 water sold)	6.88	5.09	6.31	5.58	5.48	5.44
11.1 - Unit Operational Cost Water and Wastewater (W&WW) (US\$/m3 sold)	7.21	5.29	5.04	4.23	5.83	8.88
24.1 - Operating Cost Coverage (ratio)	0.95	0.96	1.25	1.32	0.94	0.61
23.1 - Collection Period (days)	569.61	275.25	445.39	450.45	394.83	462.96
23.2 - Collection ratio (%)	58.24%	90.47%	61.86%	83.25%	81.13%	71.29%
Staffing						
36 -Total number of staff	54	51	52	54	50	44
121 - including female				11	10	11
12.3 - Staff Water/000 Water pop served (#/000 W pop served)	6.9	6.23	9.79	2.17	2.09	2.33

**Majuro, Marshall Islands water tariffs. Tariff system – one block volumetric without connection fee**

<b>Water</b>	<b>Consumption m<sup>3</sup> per Month</b>	<b>Tariff (USD per m<sup>3</sup>)</b>	<b>Tariff (USD per m<sup>3</sup>)</b>
1st Block	All Consumption levels	1.59	1.59

**Public Utilities Board, Kiribati. Water and wastewater department of the combined utility**

	2011	2012	2013	2014	2015	2016	2017
Service							
1.1 - Water Coverage (%)	89.75%	62.30%	67.26%	65.56%	62.89%	68.54%	67.36%
40 - Population served, water	35,900	31,400	33,900	33,042	33,090	38,605	38,839
2.1 - Sewerage Coverage (%)	42.46%	25.79%	31.69%	36.43%	34.89%	33.17%	27.72%
70- Population served, sewerage	21,400	13,000	15,970	18,360	18,360	18,680	18,752
15.1 Hours of operations (hours a day)	4.0	2.0	2.0	3.0	2.0	2.0	2.0
4.1 - Total Water Consumption (liters/person/day)	37.39	15.71	11.31	5.26	4.07	5.27	5.24
4.7 - Residential Consumption (liters/person/day)				5.26	0.5	2.06	1.63
Technical performance							
6.1 - Non Revenue Water (%)	30.99%	74.95%	80.56%	91.08%	92.44%	88.37%	89.13%
6.2 - Non Revenue Water (m3/km/day)	4.34	10.61	11.43	12.76	11.76	10.92	11.66
9.1 - Pipe Breaks (breaks/km/yr)	0.04	0.02	0.09	0.04	0.34	0.35	0.43
10.1 - Sewer System Blockages (blockages/km/yr)	1.34	1.52	1.62	2.5	2.38	0.83	0.43
8.1 - Water sold that is metered % (%)		22.22%	100.00%	100.00%	100.00%	60.83%	68.95%
Financial performance							
18.1 - Average Revenue W&WW (US\$/m3 water sold)	2.63	7.61	6.0	19.49	12.79	27.3	19.6
11.1 - Unit Operational Cost Water and Wastewater (W&WW) (US\$/m3 sold)	1.99	5.16	6.48	15.56	18.14	14.63	18.06
24.1 - Operating Cost Coverage (ratio)	1.32	1.47	0.93	1.25	0.71	1.87	1.09
23.1 - Collection Period (days)	1,103.48	1,128.12	0.0	81.08	184.62	66.94	145.61
23.2 - Collection ratio (%)	43.99%	41.65%	66.20%	50.97%	13.82%	75.55%	70.16%
Staffing							
36 -Total number of staff	50	42	69	69	37	146	141
121 - including female						31	28
12.3 - Staff Water/000 Water pop served (#/000 W pop served)				0.88	0.79	0.8	0.7

**PUB Kiribati water tariffs**

Water	Consumption m <sup>3</sup> per Month	Tariff (USD per m <sup>3</sup> )	Tariff (AUD per m <sup>3</sup> )
Flat Rate Tariff	All Consumption levels	13.14	15

**Population is exempt from water and wastewater payments**

**Chuuk Public Utilities Corporation, Micronesia. Water and wastewater department of combined utility**

	2011	2012	2013	2014	2015	2016	2017
Service							
1.1 - Water Coverage (%)	19.50%	67.50%	17.67%	22.29%	20.39%	22.39%	29.15%
40 - Population served, water	3,900	5,400	2,449	3,089	2,825	3,102	4,039
2.1 - Sewerage Coverage (%)	13.50%	50.00%	11.77%	24.29%	17.62%	20.26%	81.43%
70- Population served, sewerage	2,700	4,000	1,630	3,366	2,442	2,807	2,807
15.1 Hours of operations (hours a day)	3.0	24.0	24.0	24.0	24.0	24.0	24.0
4.1 - Total Water Consumption (liters/person/day)		258.75	275.64	226.12	241.52	257.09	191.57
4.7 - Residential Consumption (liters/person/day)			191.41	139.68	146.42	136.59	93.63
Technical performance							
6.1 - Non Revenue Water (%)		39.29%	82.15%	75.30%	75.29%	66.75%	64.23%
6.2 - Non Revenue Water (m3/km/day)	18.79	27.4	93.09	63.8	59.69	30.15	26.16
9.1 - Pipe Breaks (breaks/km/yr)		2.18	0.18	0.45	0.17	0.15	0.11
10.1 - Sewer System Blockages (blockages/km/yr)			0.47	0.93	0.7	0.37	0.37
8.1 - Water sold that is metered % (%)			100.00%	100.00%	100.00%	100.00%	100.00%
Financial performance							
18.1 - Average Revenue W&WW (US\$/m3 water sold)		0.2	1.06	1.35	1.44	1.48	1.44
11.1 - Unit Operational Cost Water and Wastewater (W&WW) (US\$/m3 sold)		0.74	2.63	2.94	2.85	2.68	3.09
24.1 - Operating Cost Coverage (ratio)	0.29	0.26	0.4	0.46	0.51	0.55	0.47
23.1 - Collection Period (days)		133.89	247.71	261.47	309.52	246.96	239.62
23.2 - Collection ratio (%)	100.00%	97.72%	53.30%	82.95%	86.48%	100.00%	100.00%
Staffing							
36 -Total number of staff	13	20	12	12	12	18	25
121 - including female			6	6	7	7	7
12.3 - Staff Water/000 Water pop served (#/000 W pop served)			2.45	1.94	2.12	2.9	3.22



**Chuuk, Micronesia water tariffs. Tariff system IBT**

<b>Water</b>	<b>Consumption m<sup>3</sup> per Month</b>	<b>Tariff (USD per m<sup>3</sup>)</b>
1st Block	to 7.57	0
2nd Block	7.58 to 15.14	0
3rd Block	15.15 to 30.28	0.66
4th Block	30.29 And More	0.79

<b>Other Charges</b>	<b>Charge (USD)</b>
Fixed Charge (USD/Month)	7
Tax (VAT) (%)	5

**Guam Water Authority. Water and sanitation company**

	2011	2012	2013	2014	2015
Service					
1.1 - Water Coverage (%)	94.90%	95.76%	93.19%	93.93%	72.61%
40 - Population served, water	151,670	153,500	149,800	151,440	117,400
2.1 - Sewerage Coverage (%)	46.64%	46.78%	48.40%	46.61%	
70- Population served, sewerage	74,540	74,990	77,800	75,140	
15.1 Hours of operations (hours a day)	24.0	24.0	24.0	24.0	24.0
4.1 - Total Water Consumption (liters/person/day)	419.98	411.94	425.77	416.46	
4.7 - Residential Consumption (liters/person/day)	242.23	230.42	253.85	240.07	
Technical performance					
6.1 - Non Revenue Water (%)	57.45%	56.30%	53.16%	55.34%	
6.2 - Non Revenue Water (m3/km/day)	66.8	63.29	56.22	60.71	
9.1 - Pipe Breaks (breaks/km/yr)	3.61	3.75	4.37	5.48	
10.1 - Sewer System Blockages (blockages/km/yr)	0.4	0.34	0.45	0.42	
8.1 - Water sold that is metered % (%)			100.00%	100.00%	100.00%
Financial performance					
18.1 - Average Revenue W&WW (US\$/m3 water sold)	2.9	3.01	3.21		
11.1 - Unit Operational Cost Water and Wastewater (W&WW) (US\$/m3 sold)	2.74	2.78	2.99		
24.1 - Operating Cost Coverage (ratio)	1.06	1.08	1.07		
23.1 - Collection Period (days)	52.27	63.64	69.54		
23.2 - Collection ratio (%)	96.67%	97.35%	98.03%		99.05%
Staffing					
36 -Total number of staff	321	317	315	295	
121 - including female					
12.3 - Staff Water/000 Water pop served (#/000 W pop served)	0.6	0.58	0.66	0.61	2.12

No data for 2016-2017

**GWA Guam Water tariffs. Tariff type IBT\***

<b>Water</b>	<b>Consumption m<sup>3</sup> per Month</b>	<b>Tariff (USD per m<sup>3</sup>)</b>	<b>Tariff (USD per m<sup>3</sup>)</b>
1st Block	to 18.93	0.77	0.77
2nd Block	18.94 And More	2.83	2.83

<b>Other Charges</b>	<b>Charge (USD)</b>	<b>Charge (USD)</b>
Fixed Charge (USD/Mo)	22.56	22.56
Other Percentage Charges (%)	3.75	3.75

**Consumption break-down not done due to lack of data on residential consumption**

**Commonwealth Utilities Corporation, Northern Marianas**

CU Northern Marianas	2011	2012	2013
Service			
1.1 - Water Coverage (%)	96.15%	96.15%	100.00%
40 - Population served, water	50,000	50,000	53,900
2.1 - Sewerage Coverage (%)		61.54%	43.75%
70- Population served, sewerage	32,000	32,000	21,000
15.1 Hours of operations (hours a day)	24.0	24.0	24.0
4.1 - Total Water Consumption (liters/person/day)	373.15	373.15	255.17
4.7 - Residential Consumption (liters/person/day)			
Technical performance			
6.1 - Non Revenue Water (%)	47.58%	47.58%	70.01%
6.2 - Non Revenue Water (m3/km/day)	70.26	70.26	50.97
9.1 - Pipe Breaks (breaks/km/yr)	0.41	0.41	0.33
10.1 - Sewer System Blockages (blockages/km/yr)			
8.1 - Water sold that is metered % (%)	100.00%	100.00%	100.00%
Financial performance			
18.1 - Average Revenue W&WW (US\$/m3 water sold)	1.85	1.76	2.39
11.1 - Unit Operational Cost Water and Wastewater (W&WW) (US\$/m3 sold)	1.84	1.84	2.83
24.1 - Operating Cost Coverage (ratio)	1.01	0.96	0.84
23.1 - Collection Period (days)	43.94	46.17	
23.2 - Collection ratio (%)	83.26%	85.42%	100.00%
Staffing			
36 -Total number of staff	131	131	162
121 - including female			
12.3 - Staff Water/000 Water pop served (#/000 W pop served)			

No information provided for 2014-2017

**CU Northern Marianas. Tariff type IBT**

<b>Water</b>	<b>Consumption m<sup>3</sup> per month</b>	<b>Tariff (USD per m<sup>3</sup>)</b>
1st Block	to 11.36	0.19
2nd Block	11.37 to 56.78	0.46
3rd Block	56.79 to 113.56	0.71
4th Block	113.57 to 227.12	0.95
5th Block	227.13 And More	1.19

<b>Other Charges</b>	<b>Charge (USD)</b>
Fixed Charge (USD/Mo)	10.86
Other Volumetric Charges (USD/gal)	0.98

**Consumption break-down not done due to lack of data on residential consumption**

**Palau Public Utilities Corporation (PPUC), Palau. Water and wastewater department of the public utilities company**

	2011	2012	2013	2016	2017
Service					
1.1 - Water Coverage (%)		94.74%	99.47%	99.20%	100.00%
40 - Population served, water		18,000	18,900	17,456	14,128
2.1 - Sewerage Coverage (%)		52.63%	58.95%	100.00%	68.92%
70- Population served, sewerage	9,300	10,000	11,200	12,031	9,737
15.1 Hours of operations (hours a day)	24.0	24.0	24.0	24.0	20.0
4.1 - Total Water Consumption (liters/person/day)		447.49	437.78	436.44	576.25
4.7 - Residential Consumption (liters/person/day)				245.79	344.43
Technical performance					
6.1 - Non Revenue Water (%)	41.45%	40.85%	50.49%	59.32%	41.18%
6.2 - Non Revenue Water (m3/km/day)	40.9	36.59	42.19	34.52	17.71
9.1 - Pipe Breaks (breaks/km/yr)			1.0	0.76	
10.1 - Sewer System Blockages (blockages/km/yr)				1.04	
8.1 - Water sold that is metered % (%)	100.00%	100.00%	100.00%	100.00%	100.00%
Financial performance					
18.1 - Average Revenue W&WW (US\$/m3 water sold)	0.23	0.58	0.57	2.0	1.88
11.1 - Unit Operational Cost Water and Wastewater (W&WW) (US\$/m3 sold)	1.04	1.42	2.11	2.21	1.56
24.1 - Operating Cost Coverage (ratio)	0.22	0.41	0.27	0.9	1.2
23.1 - Collection Period (days)	14.15		49.79	48.6	68.12
23.2 - Collection ratio (%)	98.52%	68.29%	100.00%	80.57%	71.78%
Staffing					
36 -Total number of staff	105	105	115	252	252
121 - including female				39	39
12.3 - Staff Water/000 Water pop served (#/000 W pop served)				5.16	6.37

**No data for 2014-2015**

**PPUC Palau residential tariffs. Tariff type: one block volumetric, no connection fee.**

Water	Consumption m <sup>3</sup> per Month	Tariff (USD per m <sup>3</sup> )	Tariff (USD per m <sup>3</sup> )
1st Block	All Consumption levels	0.22	0.22

**Ministry of Utilities and Industries, Tuvalu. Department of water**

Ministry of Utilities and Industries, Tuvalu	2011	2012	2013	2014	2015	2016	2017
Service							
1.1 - Water Coverage (%)	98.00%	100.00%	94.00%	90.00%	98.00%	96.00%	98.00%
40 - Population served, water	4,900	5,000	4,700	4,500	4,900	4,800	4,900
2.1 - Sewerage Coverage (%)							
70- Population served, sewerage							
15.1 Hours of operations (hours a day)	24.0	24.0	24.0	24.0	24.0	24.0	24.0
4.1 - Total Water Consumption (liters/person/day)	5.48	5.48	5.83	8.4	7.72	9.02	8.83
4.7 - Residential Consumption (liters/person/day)							
Technical performance							
6.1 - Non Revenue Water (%)							
6.2 - Non Revenue Water (m3/km/day)							
9.1 - Pipe Breaks (breaks/km/yr)							
10.1 - Sewer System Blockages (blockages/km/yr)							
8.1 - Water sold that is metered % (%)							
Financial performance							
18.1 - Average Revenue W&WW (US\$/m3 water sold)							
11.1 - Unit Operational Cost Water and Wastewater (W&WW) (US\$/m3 sold)							
24.1 - Operating Cost Coverage (ratio)							
23.1 - Collection Period (days)							
23.2 - Collection ratio (%)							
Staffing							
36 -Total number of staff	10	11	11	11	11	11	11
121 - including female							
12.3 - Staff Water/000 Water pop served (#/000 W pop served)	1.1	1.2	1.49	1.56	1.43	1.46	1.43

**Incomplete set. No tariff data available**



**Southern Yap Water Authority, Micronesia. Water and sanitation company**

	2011	2012	2013	2014	2015	2016	2017
Service							
1.1 - Water Coverage (%)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
40 - Population served, water	962	981	1,001	1,023	3,800	3,800	3,805
2.1 - Sewerage Coverage (%)							
70- Population served, sewerage							
15.1 Hours of operations (hours a day)	24.0	24.0	24.0	24.0	20.0	20.0	20.0
4.1 - Total Water Consumption (liters/person/day)	36.08	34.94	33.77	33.6	31.5	31.5	31.54
4.7 - Residential Consumption (liters/person/day)	31.66	30.63	29.28	28.73	29.97	29.97	30.01
Technical performance							
6.1 - Non Revenue Water (%)	16.67%	16.67%	16.67%	16.67%	0.26%	0.26%	0.26%
6.2 - Non Revenue Water (m3/km/day)	0.25	0.24	0.24	0.25			
9.1 - Pipe Breaks (breaks/km/yr)	2.14	2.14	1.25	1.57			
10.1 - Sewer System Blockages (blockages/km/yr)							
8.1 - Water sold that is metered % (%)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Financial performance							
18.1 - Average Revenue W&WW (US\$/m3 water sold)	3.45	3.1	3.18	3.17	1.18	1.18	1.18
11.1 - Unit Operational Cost Water and Wastewater (W&WW) (US\$/m3 sold)	2.95	2.91	2.93	3.02	2.85	2.68	3.09
24.1 - Operating Cost Coverage (ratio)	1.17	1.07	1.09	1.05			
23.1 - Collection Period (days)	93.25	119.14	96.26	97.29	55.42	55.42	55.42
23.2 - Collection ratio (%)							
Staffing							
36 -Total number of staff	4	4	4	4	4	4	4
121 - including female					1	1	0
12.3 - Staff Water/000 Water pop served (#/000 W pop served)	4.16	4.08	4.0	3.91	1.05	1.05	1.05

**No tariff data available**

**Central Yap State Public Service Corporation, Micronesia. Water department of multi-sector utility**

	2011	2012	2013	2014	2016	2017
Service						
1.1 - Water Coverage (%)	93.33%	93.33%	93.33%	100.00%	93.33%	100.00%
40 - Population served, water	-	7,000	-	4,500	2,998	2,994
2.1 - Sewerage Coverage (%)		100.00%	62.50%	62.50%	64.58%	64.58%
70- Population served, sewerage	3,200	2,000	1,500	1,500	1,550	1,550
15.1 Hours of operations (hours a day)	24.0	24.0	24.0	24.0	24.0	24.0
4.1 - Total Water Consumption (liters/person/day)		136.99		182.09	172.78	291.38
4.7 - Residential Consumption (liters/person/day)				102.15	105.16	169.54
Technical performance						
6.1 - Non Revenue Water (%)	46.97%	46.97%	38.67%	42.41%	39.61%	35.97%
6.2 - Non Revenue Water (m3/km/day)	18.87	16.99	11.7	11.74	12.12	9.04
9.1 - Pipe Breaks (breaks/km/yr)	0.22	0.2	0.19	0.76	0.85	0.42
10.1 - Sewer System Blockages (blockages/km/yr)				2.09	1.57	0.13
8.1 - Water sold that is metered % (%)			90.57%	100.00%	98.90%	100.00%
Financial performance						
18.1 - Average Revenue W&WW (US\$/m3 water sold)	1.51	1.51	1.42	1.55	1.32	1.55
11.1 - Unit Operational Cost Water and Wastewater (W&WW) (US\$/m3 sold)	1.19	1.19		1.81	1.3	1.84
24.1 - Operating Cost Coverage (ratio)	1.27	1.27		0.86	1.02	0.84
23.1 - Collection Period (days)	40.16	40.16		31.9	30.04	22.71
23.2 - Collection ratio (%)	89.00%	89.38%	90.00%	91.26%	100.00%	93.78%
Staffing						
36 -Total number of staff	15	23	0	15	13	14
121 - including female					8	1
12.3 - Staff Water/000 Water pop served (#/000 W pop served)				2.89	2.61	2.34

**No tariff data available**

**Northern Yap Gagil Tomil Authority, Micronesia. Water department of multi-sector utility**

	2011	2012	2013
Service			
1.1 - Water Coverage (%)	100.00%	100.00%	100.00%
40 - Population served, water	1,800	1,900	2,600
2.1 - Sewerage Coverage (%)			
70- Population served, sewerage			
15.1 Hours of operations (hours a day)	24.0	24.0	24.0
4.1 - Total Water Consumption (liters/person/day)	136.99	144.2	94.84
4.7 - Residential Consumption (liters/person/day)			
Technical performance			
6.1 - Non Revenue Water (%)		9.09%	
6.2 - Non Revenue Water (m3/km/day)		1.3	
9.1 - Pipe Breaks (breaks/km/yr)			
10.1 - Sewer System Blockages (blockages/km/yr)			
8.1 - Water sold that is metered % (%)	100.00%	90.00%	100.00%
Financial performance			
18.1 - Average Revenue W&WW (US\$/m3 water sold)	0.58	0.55	0.63
11.1 - Unit Operational Cost Water and Wastewater (W&WW) (US\$/m3 sold)	0.61	0.63	0.62
24.1 - Operating Cost Coverage (ratio)	0.95	0.87	1.03
23.1 - Collection Period (days)	186.69	130.46	160.09
23.2 - Collection ratio (%)	89.72%	96.88%	100.00%
Staffing			
36 -Total number of staff	3	3	3
121 - including female			
12.3 - Staff Water/000 Water pop served (#/000 W pop served)			

**No tariff available**

**No data available 2014-2017**

**Department of Transportation and Infrastructure, Kosrae, Micronesia. Subdivision of the ministry**

	2011	2012	2013	2014	2015	2016	2017
Service							
1.1 - Water Coverage (%)	53.33%	64.00%	81.67%	90.00%	25.00%	25.00%	25.00%
40 - Population served, water	1,600	1,600	4,900	5,958	2,000	2,000	2,000
2.1 - Sewerage Coverage (%)	66.67%	66.67%	40.00%	19.58%	31.88%	31.88%	31.88%
70- Population served, sewerage	2,200	2,000	2,400	1,296	2,550	2,550	2,550
15.1 Hours of operations (hours a day)	24.0	24.0	20.0	24.0	24.0	24.0	24.0
4.1 - Total Water Consumption (liters/person/day)				71.2	31.11	36.3	37.85
4.7 - Residential Consumption (liters/person/day)							
Technical performance							
6.1 - Non Revenue Water (%)				34.00%	95.56%	94.40%	94.97%
6.2 - Non Revenue Water (m3/km/day)			28.64	81.6	63.95	54.32	52.2
9.1 - Pipe Breaks (breaks/km/yr)			0.23	1.83	1.43	1.55	1.54
10.1 - Sewer System Blockages (blockages/km/yr)					2.07	2.59	2.07
8.1 - Water sold that is metered % (%)					100.00%	100.00%	100.00%
Financial performance							
18.1 - Average Revenue W&WW (US\$/m3 water sold)					0.18	0.21	0.22
11.1 - Unit Operational Cost Water and Wastewater (W&WW) (US\$/m3 sold)		0.74	2.63	2.94	2.85	2.68	3.09
24.1 - Operating Cost Coverage (ratio)					0.18	0.24	0.25
23.1 - Collection Period (days)							
23.2 - Collection ratio (%)							
Staffing							
36 -Total number of staff	2	2	6	3	2	2	2
121 - including female					2	2	2
12.3 - Staff Water/000 Water pop served (#/000 W pop served)				0.5	0.5	0.5	0.5

**No tariff data available**

**Pohnpei Utilities. Micronesia. Water and wastewater department of a multi-sector utility**

	2011	2012	2013	2014	2015	2016	2017
Service							
1.1 - Water Coverage (%)	60.71%	60.82%	61.25%	61.48%	66.43%	69.63%	72.78%
40 - Population served, water	20,934	20,970	21,120	21,198	20,088	21,204	22,320
2.1 - Sewerage Coverage (%)	21.75%	100.00%	100.00%	100.00%	64.76%	64.73%	64.94%
70- Population served, sewerage	1,300	6,000	6,260	6,260	4,938	4,968	5,016
15.1 Hours of operations (hours a day)	24.0	24.0	24.0	24.0	24.0	24.0	24.0
4.1 - Total Water Consumption (liters/person/day)	324.57	254.16	325.6	365.43			264.28
4.7 - Residential Consumption (liters/person/day)	272.14	199.43	260.04	279.07			202.2
Technical performance							
6.1 - Non Revenue Water (%)	9.01%	11.17%	10.36%	8.79%			43.57%
6.2 - Non Revenue Water (m3/km/day)	8.51	8.48	10.06	9.22			56.61
9.1 - Pipe Breaks (breaks/km/yr)	0.13	0.13	0.1	0.14			0.07
10.1 - Sewer System Blockages (blockages/km/yr)	1.55	1.47	1.05	1.05	0.05	0.05	0.05
8.1 - Water sold that is metered % (%)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Financial performance							
18.1 - Average Revenue W&WW (US\$/m3 water sold)	0.5	0.61	0.55	0.63			0.63
11.1 - Unit Operational Cost Water and Wastewater (W&WW) (US\$/m3 sold)	0.31	0.27	0.33	0.29			0.56
24.1 - Operating Cost Coverage (ratio)	1.6	2.25	1.69	2.14		1.57	1.11
23.1 - Collection Period (days)	73.23	365.0	947.8	784.94	965.16	1,275.11	1,275.11
23.2 - Collection ratio (%)	84.48%	99.37%	70.55%	50.17%			
Staffing							
36 -Total number of staff	30	30	35	43		25	31
121 - including female							11
12.3 - Staff Water/000 Water pop served (#/000 W pop served)	1.1	1.1	1.33	1.51		0.99	1.12

**No tariff data available**

## Nauru Utilities Corporation

Do you provide piped water to population?	no
Do you provide wastewater services to population?	limited
Do you provide other services&	no
Type of service provider	State own enterprise
Nature of service area	whole island
More than 50% owned by the State or other authority?	yes
Number of Towns served with water	18
Number of Towns served with sewage	Hospital area
Total population living in the service area - water supply	12,292
Total population living in the service area - wastewater	-
Population served - water	12,292
Population served - direct water supply & shared taps	-
Population served - public water points	-
Do you have water distribution system?	-
If yes, how much water you produced?	303,006 m3
Length of water distribution system	No network
Do you charge/having fees for water?	Yes
Does your utility has permanent staff?	Yes
How many staff members?	5
Does your company pays to your staff from collected revenues?	yes
If yes, how much in 2016 financial year?	
Does your company pays for electricity?	internal
If yes, how much in 2016 financial year?	
Do you produce financial reports	yes
If yes, please attach	send by post once parliament has approved

**Tokelau department for environment**

Do you provide piped water to population?	No
Do you provide wastewater services to population?	No
Do you provide other services&	No
Type of service provider	Private
Nature of service area	Rural
More than 50% owned by the State or other authority?	No
Number of Towns served with water	
Number of Towns served with sewage	
Total population living in the service area - water supply	
Total population living in the service area - wastewater	
Population served - water	
Population served - direct water supply & shared taps	
Population served - public water points	
Do you have water distribution system?	No
If yes, how much water you produced?	-
Length of water distribution system	No distribution system
Do you charge/having fees for water?	No
If yes, please post the collected	-
Does your utility has permanent staff?	Yes
How many staff members?	1 per island
Does your company pays to your staff from collected revenues?	No
If yes, how much in 2017 financial year?	-
Does your company pays for electricity?	No
If yes, how much in 2016 financial year?	
Do you produce financial reports	No
If yes, please attach	'-

**Department of water resources, Vanuatu**

Do you provide piped water to population?	yes
Do you provide wastewater services to population?	no
Do you provide other services&	no
Type of service provider	Government Department
Nature of service area	Urban water supply
More than 50% owned by the State or other authority?	no
Number of Towns served with water	4
Number of Towns served with sewage	0
Total population living in the service area - water supply	18,000 for the three towns
Total population living in the service area - wastewater	0
Population served - water	18,000
Population served - direct water supply & shared taps	17,600
Population served - public water points	400
Do you have water distribution system?	yes
If yes, how much water you produced?	Luganville - 35m <sup>3</sup> /hr, Lakatoro - 28m <sup>3</sup> /hr saratamata - 6m <sup>3</sup> /hr Isangel - 25m <sup>3</sup> /hr
Length of water distribution system	Luganville - 20km Lakatoro - 12km Saratamata - 3km Isangel - 5km
Do you charge/having fees for water?	Yes
If yes, please post the collected	Vt52/m <sup>3</sup>
Does your utility have permanent staff?	Yes
How many staff members?	20
Does your company pay to your staff from collected revenues?	no
If yes, how much in 2016 financial year?	
Does your company pay for electricity?	Yes
If yes, how much in 2016 financial year?	VT22,262,799
Do you produce financial reports	Yes
If yes, please attach	



**Niue Department of utilities**

Do you provide piped water to population?	Yes
Do you provide wastewater services to population?	No
Do you provide other services&	No
Type of service provider	Department
Nature of service area	Mixed
More than 50% owned by the State or other authority?	Yes
Number of Towns served with water	1xtown and 13 villages
Number of Towns served with sewage	no sewer system only sceptics
Total population living in the service area - water supply	1600
Total population living in the service area - wastewater	1600
Population served – water	1,600
Population served - direct water supply & shared taps	0
Population served - public water points	0
Do you have water distribution system?	Yes
If yes, how much water you produced?	Water is pumped from groundwater lenses to each village's water system - 116800m3/Tourists - 1277500m3/Dive Shops and Car Rentals - 16425m3/Businesses - 59860m3
Length of water distribution system	Each Village have their own distribution system (all 14 villages)/Overall Total: 91km
Do you charge/having fees for water?	No
If yes, please post the collected	0
Does your utility have permanent staff?	Yes
How many staff members?	9
Does your company pay to your staff from collected revenues?	No
If yes, how much in 2016 financial year?	0
Does your company pay for electricity?	Yes
If yes, how much in 2016 financial year?	NZD 150,000.00
Do you produce financial reports	No
If yes, please attach	

**Independent Water Scheme Association of Samoa. Condominium utility**

Do you provide piped water to population?	Yes
Do you provide wastewater services to population?	No
Do you provide other services	Yes - Capacity building, training and workshops - Technical support - Support with development and implementation of Drinking Water Safety Plans - Funding applications support
Type of service provider	Water Service Provider
Nature of service area	Rural
More than 50% owned by the State or other authority?	100% community owned schemes
Number of Towns served with water	31 registered schemes which include 61 rural villages
Number of Towns served with sewage	N/A
Total population living in the service area - water supply	27,961 (based on 2016 census)
Total population living in the service area - wastewater	N/A
Population served – water	14% of total population (based on 2016 census)
Population served - direct water supply & shared taps	14% of total population (based on 2016 census)
Population served - public water points	None
Do you have water distribution system?	Yes
If yes, how much water you produced?	Not available
Length of water distribution system	Not available
Do you charge/having fees for water?	Yes
If yes, please post the collected	At least \$15 per connection per month
Does your utility have permanent staff?	Yes
How many staff members?	2 salaried staff (one position currently vacant) and one Australian Volunteer (12-month contract)
Does your company pay to your staff from collected revenues?	No
Does your company pay for electricity?	No
Do you produce financial reports	Yes
If yes, please attach	Not available