



# Waste Management Service Expansion to Outer Islands



Kingdom of Tonga

Tongatapu, Vava'u, 'Eua, and Ha'apai

## # KEY WORDS

Waste management service fees/User pay system/Outer island/Waste management service expansion

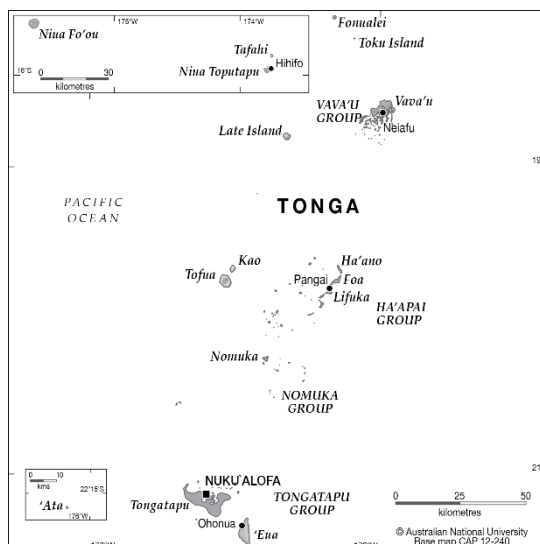
## Sustainable waste management services utilizing user pay system in outer islands

Before starting waste management services in Vava'u, an outer island in Tonga has been providing waste management services in Tongatapu Island, which has funded the collection of waste management service fees, namely a user pay system. In order to collect garbage fees more efficiently, Waste Authority Limited (WAL) has charged the fee along with the electricity fee since April 2016. It has a long track record and has proven to be a sustainable waste management system. On the other hand, in Vava'u, communities carried out waste collection services, and the government provided landfill management. Although the community-based waste management services were free of charge, there were some issues like inadequate frequency for the garbage collection and difficulty of the continual landfill management due to the lack of financial sources. In these circumstances, WAL started a waste management service with the user pay system in Vava'u in April 2018. It was the first challenge for WAL to expand their service to outer islands.

## Leading Agency(s)

Tonga Waste Authority Ltd (WAL)

## Location/Geographical Coverage



## Type of Document

A good practice fact sheet

## Target Audience

Officials of Pacific Islands Countries (PICs) working in the waste management sector

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## Measures/Approach

Some countries in the Pacific are unable to provide waste collection and treatment services at an adequate level due to chronic budget shortfall. In these circumstances, Tonga has provided waste management services properly by introducing a user pay system and securing financial resources. It is noteworthy that this system has been rolled out not only to the main island, but also to an outer island in Tonga. The key activities to expand waste management service to outer Islands are listed below.

### (1) Collection of waste management fee

The current waste management fee in Tonga is shown in the table below. It has been carefully examined whether these prices are appropriate. With regard to disbursement, it costs about Approx. 39 TOP/ton (1 USD= Approx. 2.3 TOP) for waste collection and Approx. 16 TOP/ton for landfill operation in 2018. (It was just before the expansion of the service to Vava'u).

TYPE	Fees(TOP)	
Residential/household collection & disposal	15	per month
Small businesses/Retail disposal	50	per month
Large businesses disposal	200 - 800	per month
Restaurants	128	per month
Accommodations	Individualized rates	Hotel
	80	Guest houses
Hospital waste disposal	390	per month
Septic waste disposal	180	Households
	280	Business
Bulky	100	WAL Truck 2 tons or less
	150	WAL Truck over 2 tons
Latex paint waste disposal	150	Per cubic meter
Demolition waste disposal	50	Per cubic meter

It should also be considered how much we can expect to collect the fee. In the case of Vava'u, at least 70% of service users had to pay a fee to continue the service of WAL in the estimation, and, in fact, it happened.

### (2) Business plan

Prior to the launch of the service in Vava'u, existing waste management status was reviewed. Based on these data and information, WAL's business plan was developed. Key data are listed below:

- Number of people receiving services
- Target areas of services
- Frequency of collection
- Volume of waste collected, et al.

### **(3) Resident understanding**

It was important that service providers and recipients developed a mutual understanding of waste management system. Before the WAL started service, the community provided waste management, which was free of charge. Therefore, some people disagree about the WAL's service.

In that context, WAL held a stakeholders' meeting, had implemented public meetings and radio campaigns repeatedly to get an understanding from residents about WAL's waste management services.

## **Stakeholders/Actors**

- Residents of the Vava'u Island are users of waste management service
- The system has been implemented by WAL
- On-the-job training for newly hired employees was provided by WAL's headquarters and J-PRISM experts on operations management.

## **Results/Outputs**

Proper waste management services have been provided in Tongatapu and Vava'u.

### **Impact**

WAL's service reduces the adverse per capita environmental impact of islands, including by paying special attention to waste management in Vava'u. Compared to what it was before WAL started the service, the number of illegal dumping has also decreased.

### **Innovation**

This proves that extended waste management service to an outer island is workable, if appropriate user pay system for waste management service is introduced.

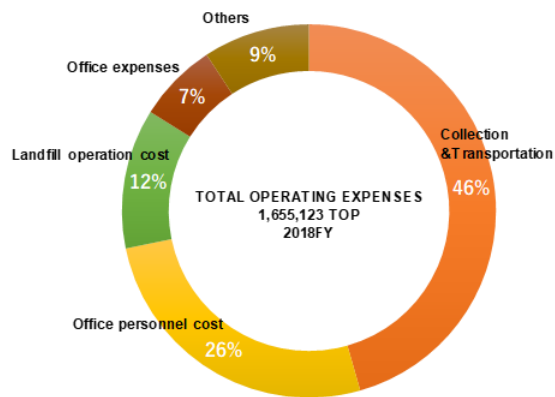
## **Success Factors**

### **(1) One-month free service**

WAL provided free-of-charge waste management services in the first month and use the period for residents to get used to the service. In the case of Tonga, residents were fully satisfied with the service and became willing to pay the waste management fee after the first month. However, providing a one-month free service requires a certain amount of seed money. For reference, waste collection costs 50–70 TOP/ton and landfill operation costs 5–10 TOP/ton as an average for the first year in Vava'u.

### **(2) Sound financial management in the main island.**

The following is a breakdown of WAL's expenditures in 2018 FY, which is just before the start of waste management service in Vava'u. It is worth noting that WAL has allocated enough budget for office personal cost. WAL has many staff members, including the CEO, with a background in finance and accounting. Their involvement was one of the key factors for WAL's success in expanding its waste management services to Vava'u.



### (3) Local office

WAL headquarters recruited all staff from the Vava'u residents, not from the headquarters. A familiar and trustworthy manager for the Vava'u residents and experienced administrative officers were employed in the local office. Assigning the right people to the right places is critical to the success of a waste management service in outer islands. It is also necessary to have the budget in place.

### (4) Collecting waste management fee along with electricity bill

The four utilities (Power Authority, Water Authority, Waste Authority, and Gas Authority) are united by a single board of directors and have been collecting waste management fees along with electricity rates since April 2016. As a result, a high collection rate has been maintained.

## Constraints

There are no serious constraints so far, as long as the fee collection system can be maintained well.

## Sustainability

It is important that residents understand WAL's waste management services and pay the waste management fee. It is also critical that waste management services on the main island need to be profitable service to cover the part of operation cost in outer island.

## Replicability and/or Up-scaling

It is possible to be replicated in any other outer islands if proper waste management and financial system is introduced and functioning well in the main island. The essence of waste management service expansion to

outer island can be shared not only within the country but also among other PICs.

## Lessons Learned

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### Importance of strong cooperative structure among stakeholders

As mentioned above, the Tonga Power Limited and the Waste Authority Limited come together under one board of directors, so there is a cooperative structure in place. They are very good at making decisions and implementing them.

## Conclusion

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### Effective development of waste management services in outer islands

The WAL's waste management service with a user pay system is a very effective way to provide the residents of outer islands with opportunities of proper waste management.



#### Contributions to SDGs

This contributes to Goal 11: Make cities and human settlements inclusive, safe, resilient, and sustainable. Among other things, it contributes to the achievement of target 11.6: By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.

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#### Relevant Websites/Resources

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Waste Authority Limited  
<https://www.facebook.com/Waste-Authority-Limited-1972734736092721>

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#### Publisher

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J-PRISM: The Project for Promotion of Regional Initiative Solid Waste Management, JICA: Japan International Cooperation Agency

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#### Acknowledgments

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SPREP: Secretariat of the Pacific Regional Environmental Programme