

Introduction of the TAISEI Soil System (TSS)

OEC Original Engineering Consultants Co., Ltd.

1. Background



【Table : Causes of death in India】

Rank	Cause of Death	Male	Female	All person
1	Perinatal conditions	36.9	29.2	33.1
2	Respiratory infections	20.7	23.3	22.0
3	Diarrheal diseases	12.3	15.3	13.8
4	Other infectious and parasitic disease	9.8	11.2	10.5
5	Symptoms signs and ill-defined conditions	3.5	3.4	3.4
6	Unintentional injuries	3.4	2.9	3.2
7	Nutritional deficiency	2.4	3.2	2.8
8	Malaria	2.4	3.0	2.7
9	Congenital anomalies	3.0	2.3	2.7
10	Fever of unknown origin	1.5	1.6	1.5

【Figure: Leakage of untreated wastewater from Septic Tank and Soak Pit】

2. Proposed technology



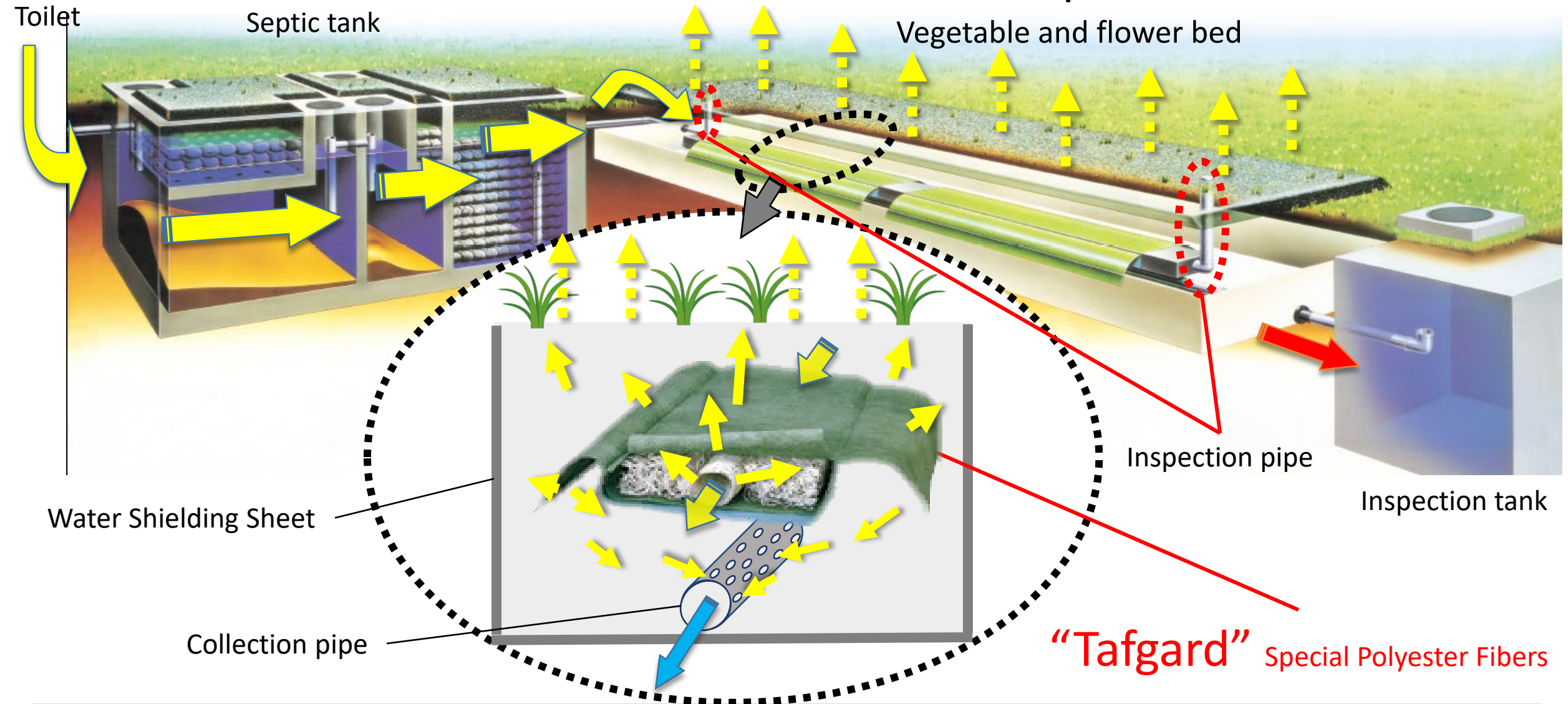
Features of the system

- 1) Little to no discharge
- 2) Little to no electricity use
- 3) High treatment capacity
- 4) Low cost and easy maintenance
- 5) Flower planting space available
- 6) Certified by the Japanese MOE

“Tafgard” Special Polyester Fibers

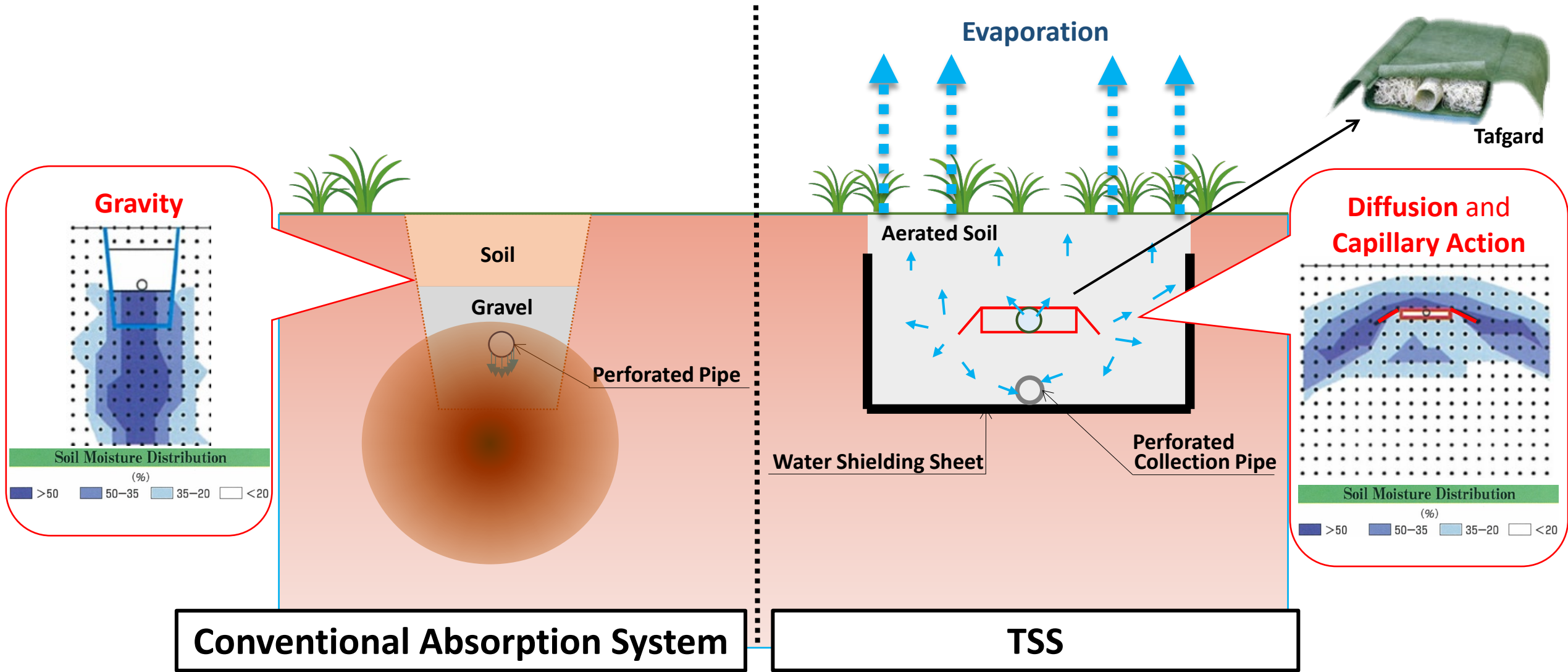
【Figure: Features of the Taisei Soil System (TSS)】

2. Proposed technology



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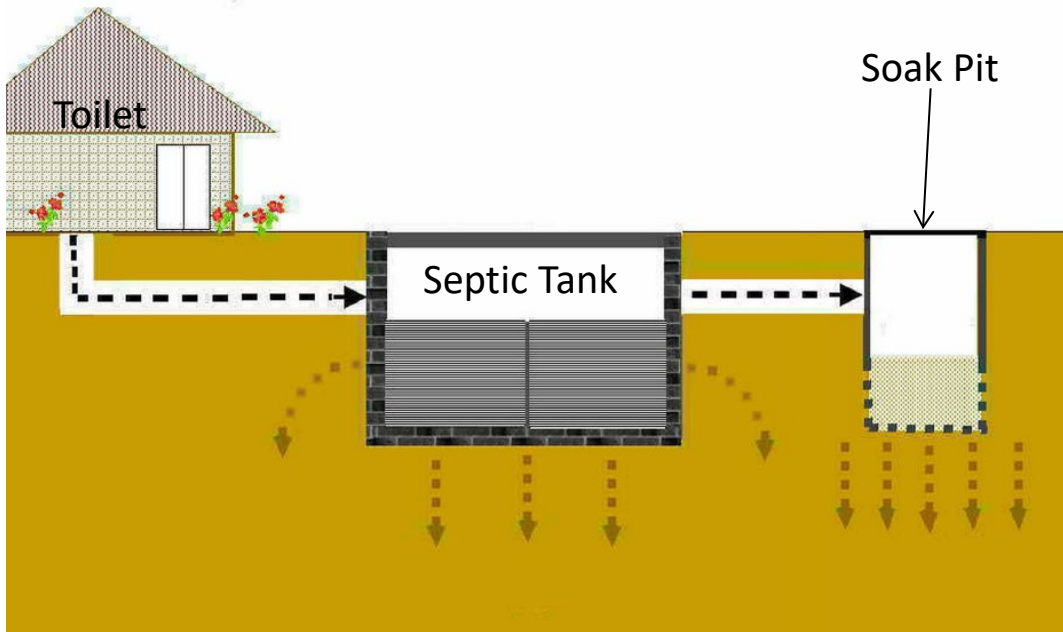
2. Proposed technology



【Figure: Comparison of a conventional absorption system and TSS】

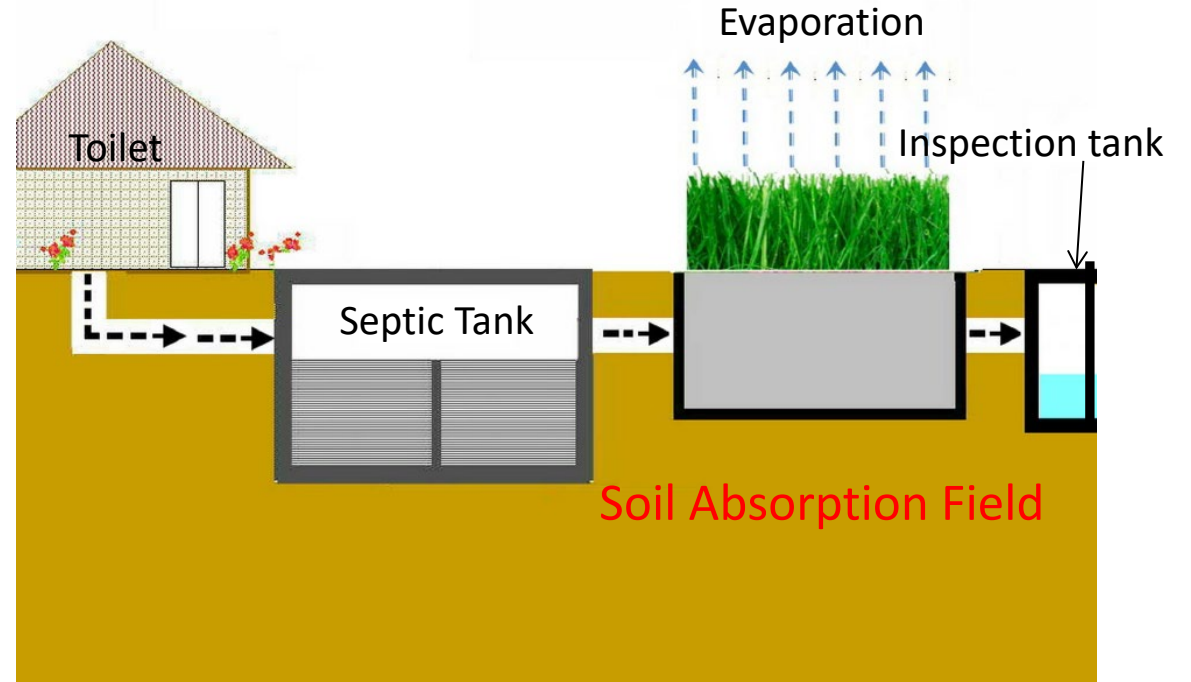
2. Proposed technology

Current systems



Leakage of untreated wastewater!!

After installation of TSS



【Figure: Effects of TSS】



2. Proposed technology

【Table: Comparative analysis of various treatment methods】

	Best condition	Pit Latrine	Septic tank and soak pit	Taisei Soil System	Joukasou	Pipe line and waste water treatment plant
		Conventional Technology			Contemporary Technology	
Initial cost	Low cost is best	◎	○	○	△	×
Maintenance cost	Low cost is best	◎	○	○	△	×
Treatment capacity	High capacity is best	×	×	◎	◎	◎
Evaluation		×	×	◎	○	△

◎Best ○Good △No Good ×Bad



3. Case Study

- Primary School Toilet



- Public Toilet



7. Case Study: Pay-for-use Public Toilets in Solomon Islands

4 Sunday Star, Sunday 18 December 2016

【Local newspaper】

www.sundaysstar.com

news

The cleanest public toilet

USLEY SAMBA

The public toilet built and opened last year near the National Lottery in Honiara is now a public facility of choice after it came to replace an old one.

Built by the Honiara City Council, the pay-for-use toilet is located near Honiara to Sunday Star to report on its construction.

Mayor Gwaha, who looks after the toilet, has seen the increasing number of people using the facility since it was opened to the public.

“There are more people and coming to use the facility since it was opened last year,” Gwaha said.

“In a day we would attract

up to 200 people,” she added.

The facility, which took about six months to build, has a sign that says “PUBLIC TOILET PAY FOR USE” and “KEEP HONIARA CLEAN.”

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“A toilet is a place that you go to, it is not a place to stay,” she said. “It is a place where you go to and then you come back to work and do your job.”

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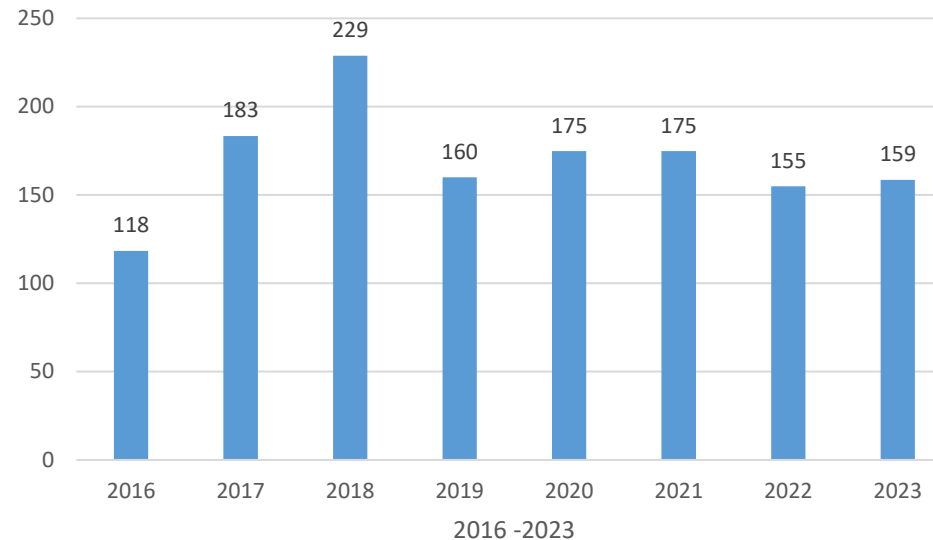
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Average Number of Daily Users



For more information, please contact:



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