

The Nazava logo is centered at the top of the slide. It features the word "nazava" in a white, lowercase, sans-serif font. Behind the text are two sets of concentric, wavy circles. The circles on the left are light green, and the circles on the right are light blue. The background of the entire slide is a gradient from dark blue on the left to a lighter teal on the right.

nazava

Safe and affordable drinking water for all

6 CLEAN WATER
AND SANITATION



Lieselotte Heederik
Co-Founder & Director

Lisa@nazava.com
www.nazava.com

Nice to meet you!



Lieselotte Heederik

Co-founder & Director

Background

- MSc from Wageningen University
- Experience in relief and development work

Roles

- Business development
- Branding, D2C
- Global



Guido van Hofwegen

Co-founder & Director

Background

- MSc from Wageningen University
- Experience in modelling, consultancy

Roles

- Sales
- Finance
- R&D



Syahri Abdillah

Manager

Background

- Bs in Electrical engineer
- Experience in project management and village water supply

Roles

- Operations
- H&R Administration



Wela Utami

Account Manager

Background

- Public Health Promotion at Yayasan Tirta Lestari
- BSc in marketing

Roles

- Recruit, train and support resellers
- School program



- 2021 • **UNWTO** SDGs Global Start-Up Competition-Finalist
- 2020 • Carbon Credits sold
• Meet & Greet HRH Queen Maxima and King Willem Alexander
• **Unicef** Household Water Treatment Filters-Product Guide
- 2019 • Carbon Credits issued under Gold Standard
- 2018 • **WHO** accreditation
• Launch Ethiopia
• Indonesia **Social Leadership Innovation** Award-World CSR Day
- 2017 • **Red-Cross** Innov4Floods Competition-3rd Prize
• Energy Globe Award-Indonesia-Winner
- 2016 • **Ashden** Awards-1st Prize
• Meet & Greet HRH **Prince Charles**
• **DBS-NUS** Finalist
- 2015 • Frost&Sullivan **Water Filtration Price/Performance Value Leadership Award**
• **Sankalp**-Finalist
- 2013 • Nokia Tech Awards-1st Prize
- 2009 • Established



Palang Merah Indonesia



Technology Benefiting Humanity



Mission statement

To provide safe and affordable drinking water to the 4.4 billion people that do not have access to treated water



1. Impact of unsafe water Indonesia



Problem



24,000

**children die annually
through diarrhea in
Indonesia**

*through consumption of
contaminated water*



8 million

**children stunted in
Indonesia**

*through constant exposure
to diarrhea*



\$ 100

costs of bottled water

per year



Source: <https://www.unicef.org/indonesia/wes.html>

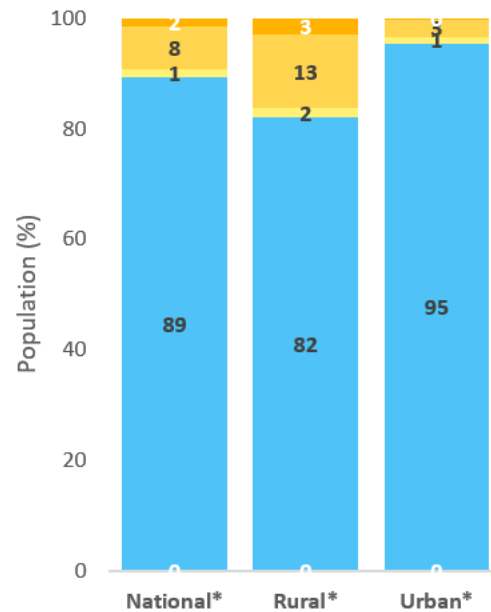
**Indonesia: 72% of
the population
uses well water...
and there's no
sewage system**



Source: JMP Monitoring database Indonesia tab 5: Estimates Drinking Water- Updated 2019
<https://washdata.org/data/household#!/>

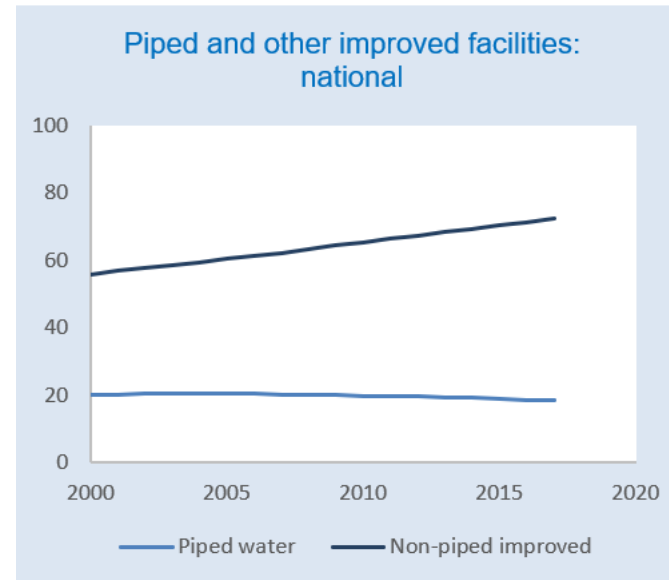
JMP Data Indonesia

Drinking water

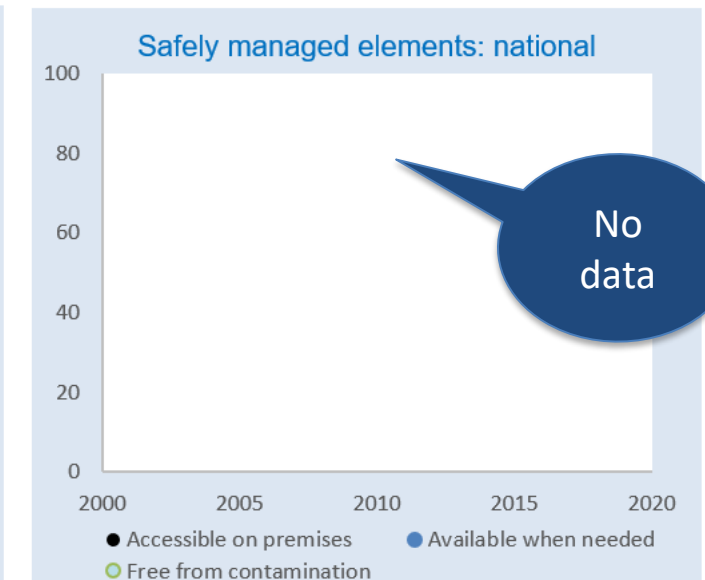


■ Safely managed
 ■ Basic service
 ■ Limited service
 ■ Unimproved
 ■ Surface water

No data



Source: WHO/UNICEF JMP (2019)



Source: JMP Monitoring database Indonesia tab 5: Estimates Drinking Water- Updated 2019

<https://washdata.org/data/household#!/>





Water quality

- 25% of all children under 5 in Indonesia suffer from diarrhea, which is the leading cause of child mortality in the country.
- Water quality is poor regardless of socio-economic conditions. A 2017 survey of drinking water in Yogyakarta, a well-off urban centre in Java, found that **89%** of water sources and **67%** of household drinking water were contaminated by fecal bacteria.
- Only **7%** of wastewater in Indonesia is treated.



% of households using groundwater

Article

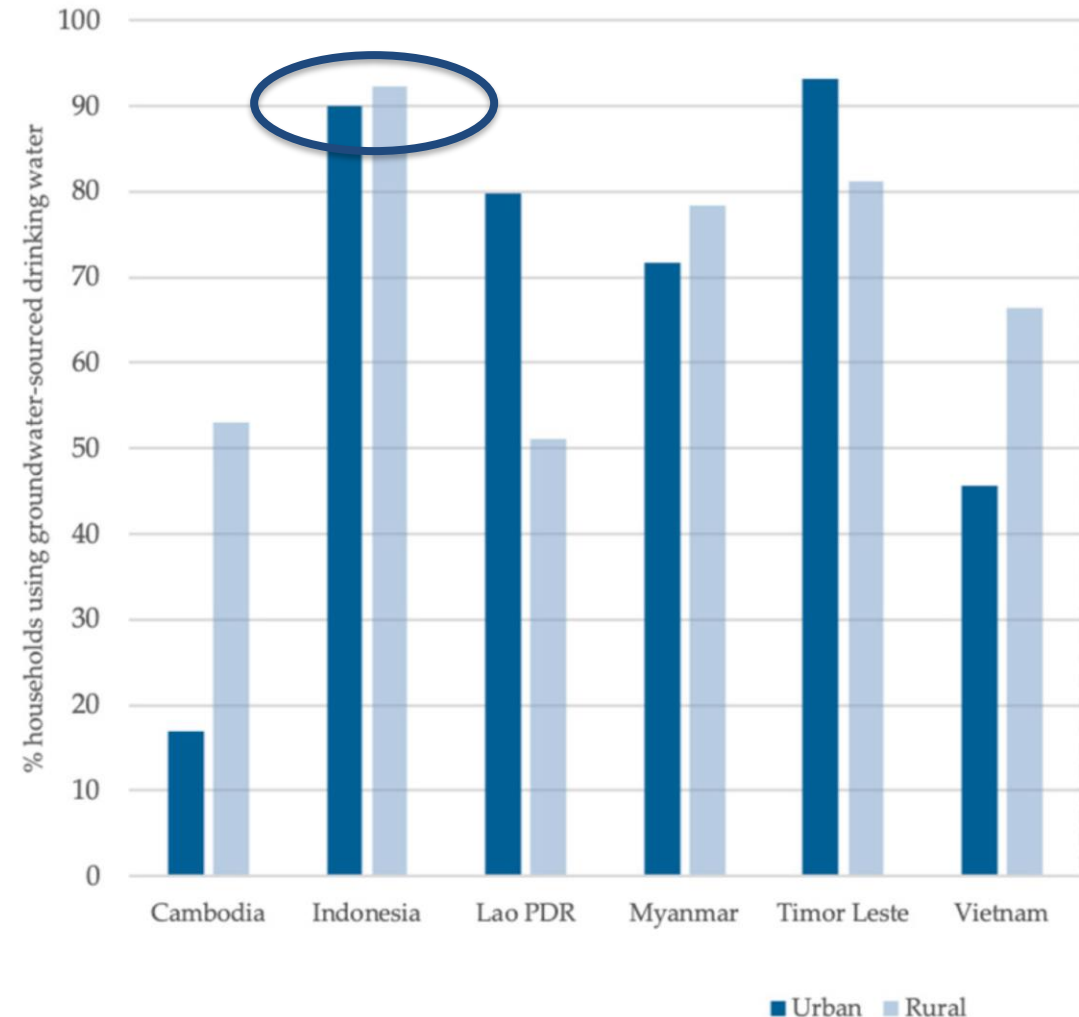
Groundwater as a Source of Drinking Water in Southeast Asia and the Pacific: A Multi-Country Review of Current Reliance and Resource Concerns

Naomi Carrard ^{*}, Tim Foster and Juliet Willetts

Institute for Sustainable Futures, University of Technology Sydney, Sydney 2007, Australia

* Correspondence: Naomi.Carrard@uts.edu.au; Tel.: +61-9514-4950

Received: 24 May 2019; Accepted: 31 July 2019; Published: 2 August 2019



Source: <https://www.mdpi.com/2073-4441/11/8/1605/htm>



Quality of bottled water

Water sources	Price (IDR/ litre)	Diarrhoea prevalence (quality)	Comparison to refillable bottled water
Branded bottled water	842.11	1.53%	Higher price – higher quality
Refillable bottled water	210.53	1.71%	–
Piped water	4.97	1.48%	Lower price – higher quality
Other water sources	0–25	2.05%	Lower price – lower quality

Source: Journal of Water and Health, 2017, A. Komarulzaman et al. | The switch to refillable bottled water in Indonesia



2. Safe drinking water with Nazava



- **Retail price: IDR 430,000**
 - **Safe water**
 - **Cost/year: IDR 167,000**
-
- 1/8 costs of bottled water
 - 1/3 costs of boiling





Filtration and purification

- Ceramic filtration (particulate)
- Activated carbon (chemicals)
- Anti-microbial silver (pathogens)
- Plastic: Food safe PP
- Tested in > 30 international labs
- 99.99% effectiveness

Capacity

- Filters up to 7,000 liters (3 years)
- At 2-3 liters per hour

Easy and convenient






- Easy installation, cleaning & replacement
- Retail price: \$20- \$30
- Filter: \$8

Track record

- 160,000 units sold by 2020
- Export to > 32 countries
- Found in 2009



Comparative benefits

Drinking water options		100% bacteria free	1 year guarantee	costs per 1,000 liters US\$	Costs per year	Local support and customer service	Made in
	NAZAVA® water filter	✓	✓	\$ 2.15	\$ 12	✓	Indonesia
	Unilever Pureit©	✓	✓	\$ 11.47	\$ 63	✓	India
	Korea King	✗	✗	\$ 9.70	\$ 53	✗	China
	Bottled water	✗	✗	\$ 58.07	\$ 318	✗	Local
	Boiling with LPG	✗	✗	\$ 9.48	\$ 52	✗	Local





Nazava Riam water filter for households

Volume: 2 x 16 Liters
Flow rate: 2 liters/hour
Weight: 2.5 kg
Volumetric weight: 7 kg

- 1 ceramic filter candle
- Designed by Delft University Netherlands
- **Worldwide best seller**
- 40ft CTR fits 3750pcs

US\$ 30*



Petrus filter water filter for emergencies

Volume: 2 x 1.5 Liters
Flow rate: 5 liters/hour
Weight: **290 gram**

- 1 ceramic filter candle
- Can hang and stand
- Includes brush & end of life indicator

US\$ 18



Nazava XL water filter for schools

Volume: 2 x 27.5 Liters
Flow rate: 15 liters/hour
Weight: 4 kg
Volumetric weight: 13 kg

- 3 ceramic filter candles
- 20ft CTR fits 500pcs

US\$ 47



Replacement filter for all Nazava filter systems

Capacity: 7000 liters or 3 years
Weight: 250 gram
Removal: 99.9% of bacteria (tested by WHO)

- Silver impregnated, filled with activated carbon Iodine 1100
- Compatible with all Nazava® filter products

US\$ 8



* Retail price. Please contact guido@nazava.com for bulk prices

450,948 people impacted



Tested in over 30 International Labs & Accredited by the WHO



World Health Organization

WHO International Scheme to Evaluate Household Water Treatment Technologies

Nazava Water Filter

Product evaluation report

WHO performance classification	Targeted protection (Guidelines and performance only) Class 1 (4)
Manufacturer	PT Polimer Filter Wajan Jl. Jenderal Sudirman 278 Cempaya, Gresik Utara 60017 Gresik West Java Indonesia nazava.com
Declaration procedure	Attested laboratory testing
WHO report issue date	March 11, 2016
WHO reference number	20-05/2015-E2-1

Summary of evaluation

This report summarizes the results of laboratory testing of a commercial filtration device, known by the trademark Nazava Water Filter, under Round II of the World Health Organization (WHO) International Scheme to Evaluate Household Water Treatment Technologies (EHS) Scheme. Testing followed the requirements of the WHO protocol for water filtration technologies. Testing investigated the ability of the device to remove bacteria and viruses. Product claim against protozoa was supported based on the mean bacterial reduction achieved. Based on the evaluation results, the Nazava Water Filter meets WHO performance criteria and is classified as providing one star (★) Targeted protection against bacteria and protozoa only.

Background

Evaluation under the Scheme is based on performance criteria set out in Guideline for Household Water Treatment Technology: Health-based aspects and microbiological performance specifications (WHO, 2010). The criteria were determined by applying quantitative microbial risk assessment methods outlined in the WHO Guidelines for Drinking-water Quality (GDQ) level set out in the risk-based targets against bacteria, viruses and protozoa, as shown in the table below.

Performance classification	Bacteria (log units log reduction)	Viruses (log units log reduction)	Protozoa (log units log reduction)	Microsporidia (log units log reduction)
★★★★	≥ 4	≥ 1	≥ 4	≥ 4
★★★	≥ 3	≥ 1	≥ 3	≥ 3
★★	≥ 2	≥ 1	≥ 2	≥ 2
★	≥ 1	≥ 1	≥ 1	≥ 1

Mean values for log units log reduction are based on the mean bacterial reduction achieved.

Product description

The Nazava Water Filter is a ceramic candle filter that is impregnated with silver. All impurities are physically removed from water as it flows through the ceramic candle under gravity. The ceramic candle also contains silver which is released to inhibit bacterial growth. The assembled filter can remove two 155-litre buckets of water from tap water. The assembled filter can be used for up to 12 months. The assembled filter can be used for up to 12 months. The assembled filter can be used for up to 12 months. The assembled filter can be used for up to 12 months.

Test methods

Product-specific test plan: A product-specific test plan was developed based on the manufacturer's instructions to use the WHO Scheme Standardized Test Plan: Technology Non-Specific V.2.0 (June 2010) and the technology test plan for Gravity-fed Batch Filtration Technologies V.2.0. Testing was conducted at a WHO designated laboratory, NSF International, in the United States.

Test organisms: Evaluation of the Nazava Water Filter investigated its performance in reducing bacteria and viruses. The test organisms were *Escherichia coli* (E. coli) and bacteriophage MS2 and phiX174. Based on the available evidence on filtration primarily by size exclusion and removal of protozoan cysts, testing against these microbial groups was not conducted (WHO, 2010). Protozoan reduction is assigned based on the mean bacterial reduction achieved.

Test waters: The device was tested in two simulated natural waters: General Hard Water (GHW) simulating high quality groundwater and Challenge Test Water (CTW) simulating surface water. Refer to the technology test plan for Gravity-fed Batch Filtration Technologies V.2.0 for details on physicochemical characteristics of the test waters.

Test setup: Three production units were used in the test, with daily use of each of 14 L of water per operational according to the manufacturer's use instructions. Pre-treatment and post-treatment water samples were analysed using methods identified in the product-specific test plan. Testing was conducted over four days (CTW on Days 1 and 2; GHW on Days 3 and 4), resulting in a total of 10 sample points for each organism (i.e. 2 days x 2 test waters x 5 test units). Post-treatment effluent samples were collected and analysed.

Teknologi Belanda:



Design by:



Source: <https://www.nazava.com/en/laboratory-test-results-nazava-water-filters/>

3 GOOD HEALTH AND WELL-BEING



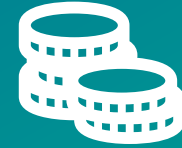
IMPROVED HEALTH



Our filters provide safe drinking water to every household

INCREASE IN DISPOSABLE INCOME

US\$78 per household per year



1 NO POVERTY



5 GENDER EQUALITY



Impact Model

REDUCED WASTE

Reduce the amount of plastic waste generated from buying bottled water



15 LIFE ON LAND



CO2 REDUCTION

Replacement for boiling water at 0.27 tCO₂e per filter per year



3 GOOD HEALTH AND WELL-BEING



13 CLIMATE ACTION



INCREASE IN DISPOSABLE TIME

Time savings of 2 hours per week per household



8 DECENT WORK AND ECONOMIC GROWTH



5 GENDER EQUALITY



nazova

Certified SDGs



Source: <https://registry.goldstandard.org/projects/details/1597>

Testimonies

- GAIN- Pakisaji, East Java
- GAIN-Kedungsalam, East Java
- School: Nazava-Sekolah SD Juara Cimahi



Partners



Worldwide Footprint



Nazava's Impact* 2024



4M

**people with
improved health**

through water filter sales



\$ 42 M

customer savings

*through access to drinking
water at lower costs*



**509
K tons CO2**

**reduced carbon
emissions**

*by replacing need to boil
water, in accumulative CO₂
equivalents*



**49,000
working years**

**time saved by women
annually**

*by replacing need to seek fuel
wood*



PARAG
TECHNOLOGY AND I

Join us!

#theSafeWaterRevolution