NXTLVL

Water

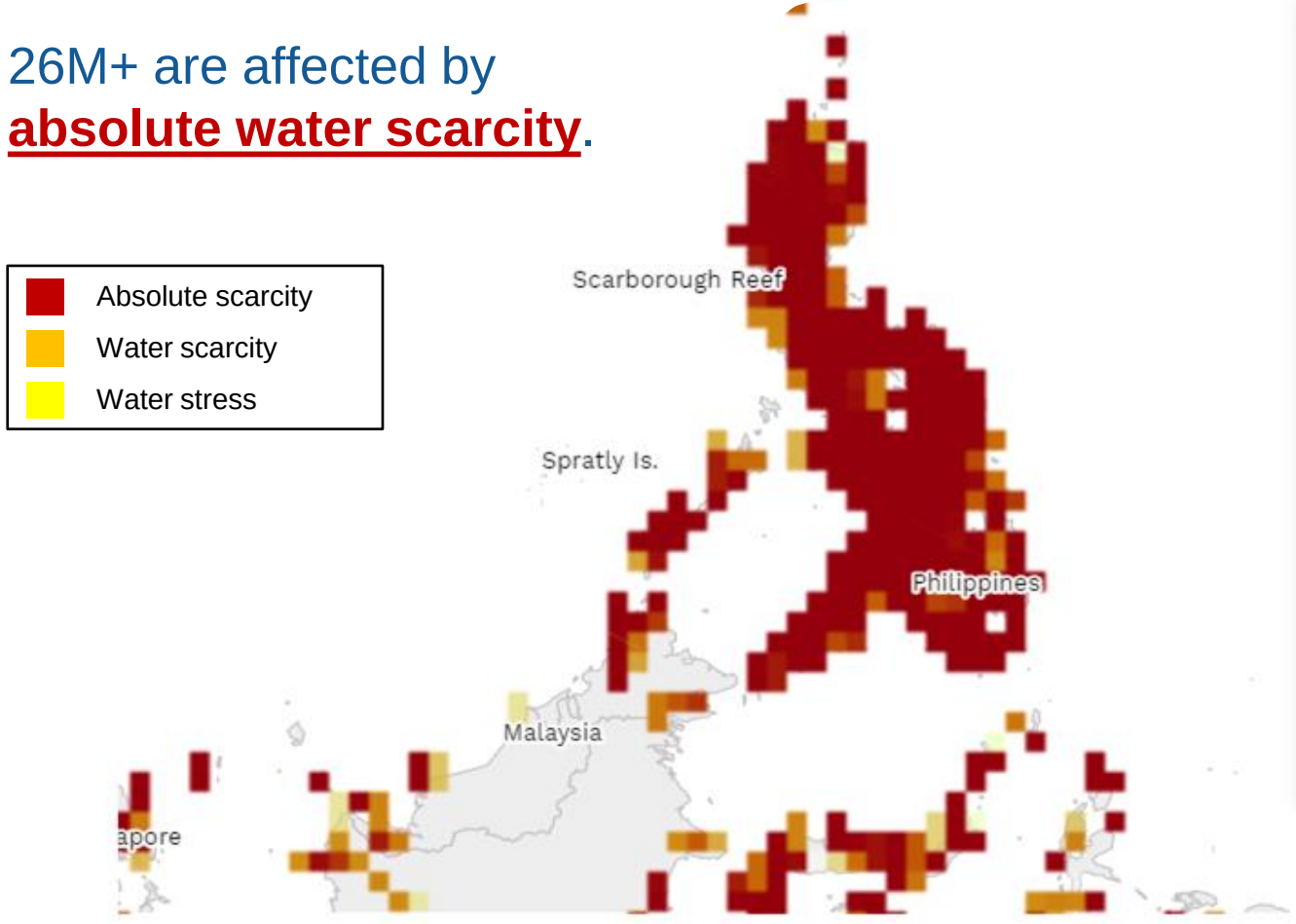
NXTLVL Water

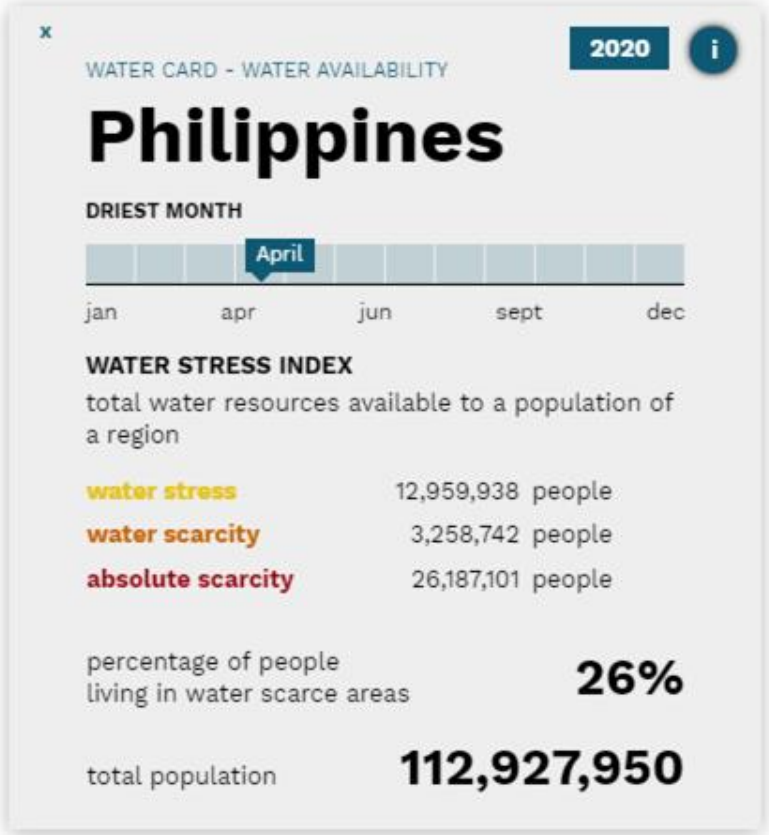
We are a Filipino water company that aims to eradicate the **potable water** crisis in islands & coastal areas, and to strengthen clean water security across the country. We do this through a focus on:

- Fit-for-purpose technological innovation
- Cost-accessibility to the poorest populations
- Environmental sustainability

Over 42M Filipinos experienced water stress in 2020

26M+ are affected by **absolute water scarcity**.





[1] Water availability in the Philippines during the driest month (April). Image from http://worldwater.io March 2, 2021 13:24 PST+8

There are Three Main Causes of the Water Problem

1. **Inadequate modern water infrastructures leading to water insecurity and interruptions**
   Clean water supply vulnerable to disruption and contamination, esp. during natural disasters.

2. **Alarming depletion of freshwater resources**
   Some negative effects of groundwater over-extraction are saline intrusion and decline of water quality.

3. **Desalination & other seawater treatment methods traditionally expensive**
   Energy costs of treating seawater traditionally very expensive, can cost up to PHP 90 per 5 gallons [1]

[1] **Patrick Lester N. Ty**, Chief Regulator, MWSS Regulatory Office via https://www.pna.gov.ph/articles/1081347

Introducing the NXTLVL Hydra

"What used to be P2-P2.50 per liter or P2,000-P2,500 per cubic meter, is now just about **50 centavos per liter** or P500 per cubic meter with the desalination system right on [Pamilacan] island."

– Gov. Art Yap, Provincial Government of Bohol

NXTLVL Addresses The Three Main Problem Factors

	Issue	NXTLVL Solution
1	**Inadequate modern water infrastructures leading to water insecurity and interruptions.**	**Modular and Resilient, Award-Winning Design** Compact and rapidly deployable even to remote islands; Can operate even during typhoons & extreme weather conditions[1]
2	**Alarming depletion of freshwater resources.**	**Undepletable, Sustainable Resources.** Seawater is an abundant and consistent source. Solar power utilized to generate required energy.
3	**Desalination & other seawater treatment methods traditionally expensive.**	**Cost-Efficiency for the End-Consumer** Save 75% or more on power & electricity costs Incorporate potable water treatment & distribution facilities for ease of use

Hydra breaks through the Cost-Availability Barrier

Existing solutions trade off cost and quality/availability. NXTLVL solves both.

Cost of jug to customer

Price per 5-gal jug

₱ 25

₱ 50

₱ 75+

- **Deep wells** illegal and/or unfeasible in many areas
- Often **worrying quality issues**, e.g. saline intrusion

AQUABEST

Crystal Clear

- Large commercial water filling stations **cannot operate** on most islands
- Frequently **expensive**

MACTAN ROCK INDUSTRIES, INC.

WMP WATERMATIC PHILIPPINES A VIVANT COMPANY

- **Traditional desalination is expensive** and high opex due to power needs
- Large infrastructure, **cannot deploy on islands**

NATURE'S SPRING

Wilkins Pure

- Bottled water **prohibitively expensive** for most people
- Supply chain issues common

NXTLVL Water

- ✔ Self-power and resiliency features for 365-day production
- ✔ Selling price as low as PHP 5 per 5-gallon jug
- ✔ 9-stage filtration process for quality higher than most premium commercial brands

Availability – Accessibility – Quality

NXTLVL Hydra: Technology Benefits

Key Tech Features

- **5,000-88,000 liters per day** year-round of potable water from unlimited renewable source: the sea
- **100% solar-powered** for zero net energy costs
- **Small footprint** (<50sqm) modular systems
- **Lowest cost** of seawater or brackish water treatment at sub-100m^3 per day scale through award-winning **energy recovery device**
- **High quality** output beyond WHO Standard
- Typhoon and **extreme weather resilience**
- **Turnkey**; localized supply chain & deployment for small islands
- **Labor-efficient operations** and potable water distribution model
- **Remote monitoring** and maintenance

Tech Partners / Recognition

elemental water makers

Solar Impulse Efficient Solution

Global Clean Water Desalination Alliance

ImpactCity

TU Delft

eit Climate-KIC

Elemental Water Foundation

WINNER MBR Global Water Award 2017

Mohammed bin Rashid Al Maktoum Global Water Award

NXTLVL Systems in the Philippines

San Juan, La Union
11klpd, hybrid 60% solar, 30% grid

Pampanga
EWR 30 & EWR 50

Pamilacan, Bohol
5klpd, 100% solar

Tanza, Cavite
11klpd, hybrid 60% solar, 30% grid

Pandanon, Bohol
5klpd, 100% solar

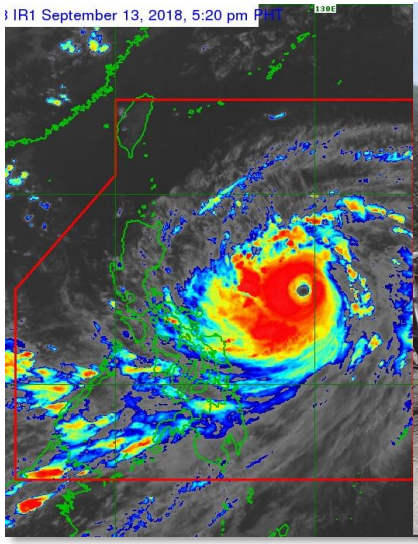
NXTLVL Hydra Systems in Bohol

Locations	Pandanon Island Pamilacan Island
Housings	48 sqm concrete structures
Capacities	5,000 liters per day
Pop. served	3,500 island residents
Water Intake	10 ft beach well
Energy	100% solar-powered
Selling price per 5 gallon jug	**Php 5.00**
Distribution channels	Site walk-ins Distribution partners

In partnership with the Provincial Government of Bohol

NXTLVL Hydra System in La Union

Location	Urbiztondo, San Juan
Housing	20-ft shipping container
Capacity	11,000 liters per day
Water Intake	90 ft deep beach well
Energy	60-30% solar-grid hybrid
Selling price per 5 gallon jug	**Php 10.00**
Distribution channels	Site walk-ins Distribution partners



Typhoon Ompong

Across the street

NXTLVL Hydra Site

NXTLVL Solution for Disaster Relief: Emergency Water Response System (EWR)

- Potable water from almost any source (lakes, streams, brackish water, sea water, etc.)
- Fully Solar-powered (no gen-set required)
- Rapid and simple deployment perfect for post-disaster relief
- Portable and high strength military grade casing
- Easy maintenance and reusability
- One EWR system can service **500 to 1000 people per day**

Available in 2 versions: **EWR30 & EWR50**

Technical Features of EWR Systems

EWR30

Capacity:	720 liters per day – 7.8 Gal/hour
Power Supply:	12 VDC
Consumption:	110 W – 9 A
Weight:	38kg – 84 lb
Membranes:	n.1 2.5″ x 21″
Filters:	50 mesh strainer – 5 micron melt blown 5″ x 2.5″
Inlet Hose:	i.d. 16mm length 10mt
Discharge Hose:	i.d. 16mm length 5mt
Permeate Hose:	i.d. 16mm length 5mt
Suction Capacity:	horizontal 10mt – vertical 1mt

EWR50

Capacity:	1200 liters per day – 13.2 Gal/hour
Power Supply:	12 VDC
Consumption:	240 W – 20 A
Weight:	48kg – 106 lb
Membranes:	n.2 2.5″ x 21″
Filters:	50 mesh strainer – 5 micron melt blown 5″ x 2.5″
Inlet Hose:	i.d. 16mm length 10mt
Discharge Hose:	i.d. 16mm length 5mt
Permeate Hose:	i.d. 16mm length 5mt
Suction Capacity:	horizontal 10mt – vertical 1mt

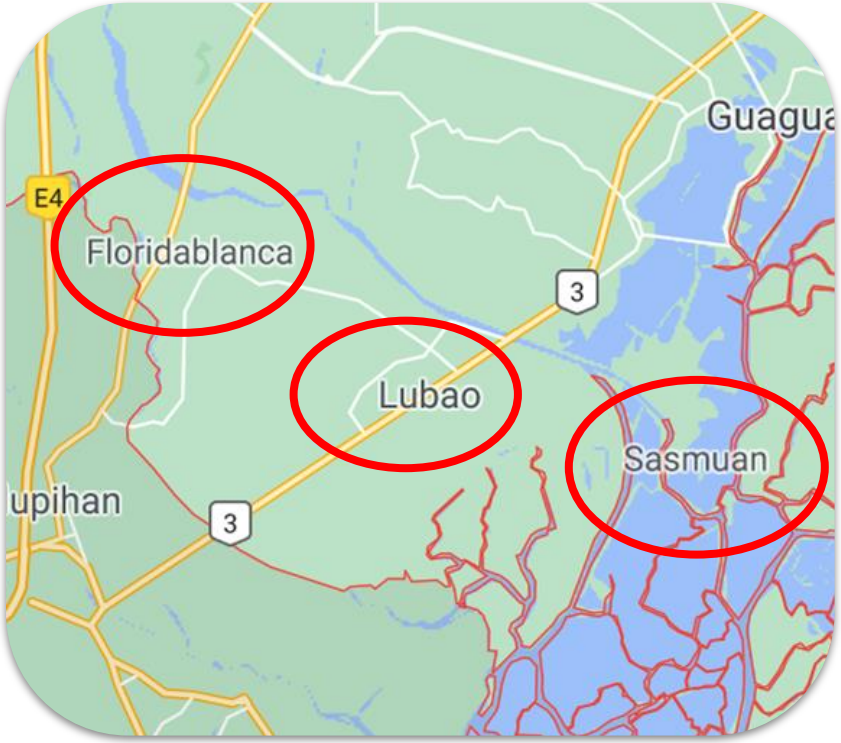
EWR Powerbox

Capacity:	40 Ah
Battery Type:	Lithium-ion (LiFoPO4)
Stored Energy:	512 Wh
Nominal Voltage:	12.8 V
Weight:	25kg
Safety Features:	Overload, Short - circuiting,Temperature
Solar Panel Power:	120 Watt
Solar Panel Voltage:	12 VDC
Solar Panel Cells:	3×12
Solar Panel Dimension (Unfolded):	1280mm x 540mm

*Both EWR30 & EWR50 comes with an **EWR Powerbox** solar add-on for off-grid usage*

NXTLVL EWR Case Study: Pampanga

A total of five EWR systems were deployed to three different municipalities in Pampanga (Sasmuan, Floridablanca, Lubao) for purposes of DRRM use by the LGUs. The EWR systems will **service up to 4500 Pampangeños** with high quality potable water in times of disaster.



[Click here to see EWR in action]

Turnover of EWR and Powerbox

On-site demo with NXTLVL Team

Testing of EWR box in a creek

Engineering Leadership & Sample Project Timeline

Previous Experience:
- Construction Manager (Water and Sewage)
- Piping Mechanical Design Engineer (Water Treatment; Oil and Gas)

Ryan Pardiñas
Engineering Manager

Previous Experience:
- Tender / Project Control Engineer (Water and Sewage)
- Piping Design Engineer (Oil and Gas)

Randy Racal
Senior Project Engineer

PROJECT: SMALL SCALE DESALINATION PLANT					Month 1				Month 2				Month 3				Month 4			
SUBJECT: Work Schedule					W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15	W16	W17
Item #	Description	Start	Finish	Days																	
1	Planning, Document Submittals, Permits			30																	
2	Civil Works			46																	
2.1	*Mobilization*			5																	
2.2	*Building*			43																	
3	Well			5																	
4	Mechanical and Electrical Works			15																	
4.1	*Procurement*			3																	
4.2	*Equipment Installation*			5																	
4.3	*Piping Installation*			5																	
4.4	*Tank Modification and Installation*			5																	
4.5	*Electrical and Instrumentation Works*			4																	
5	Commissioning			1																	
6	Training			1																	

NXTLVL Water Partnerships

Embassy of the
Kingdom of the Netherlands

NXTLVL Water

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Click video to learn more.