Asia Water Forum 2022
8–11 August 2022 • Online

Focus Area: Universal water supply and sanitation services

Session Title: 2E Sector Capacity and Stakeholder Engagement

Schedule: [11 August 2022 (Thu) | 9:00 am – 10:30 am (GMT +08)]

Improving desalination outcomes in the Pacific: An iterative design and training-based approach

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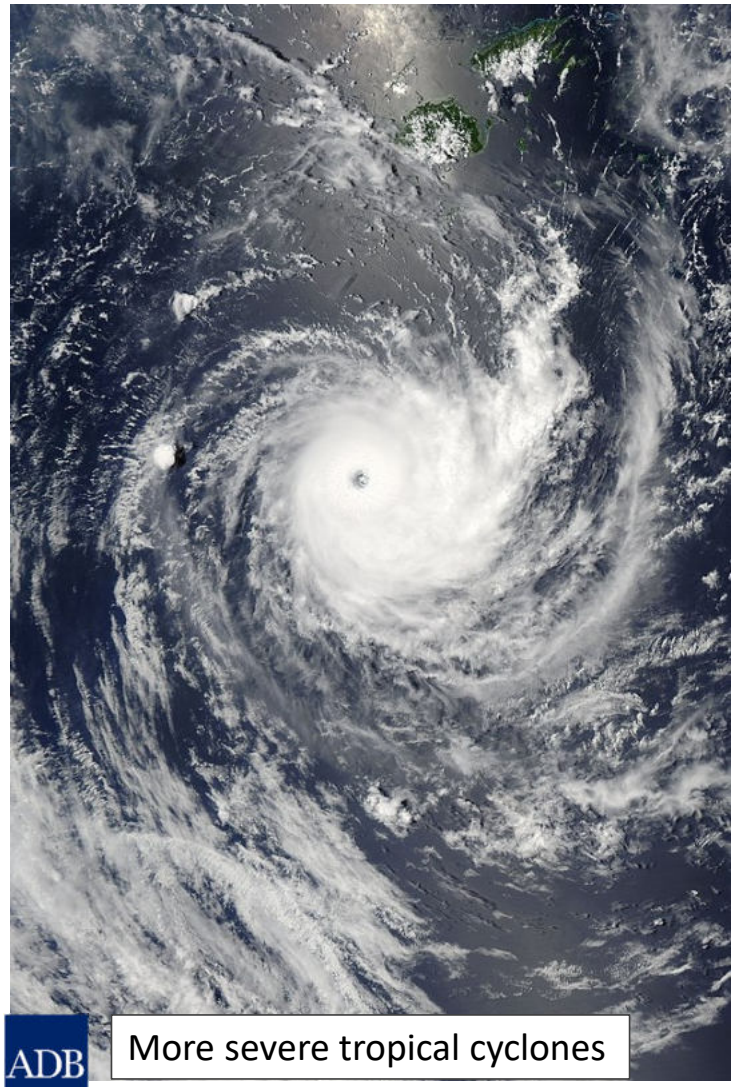
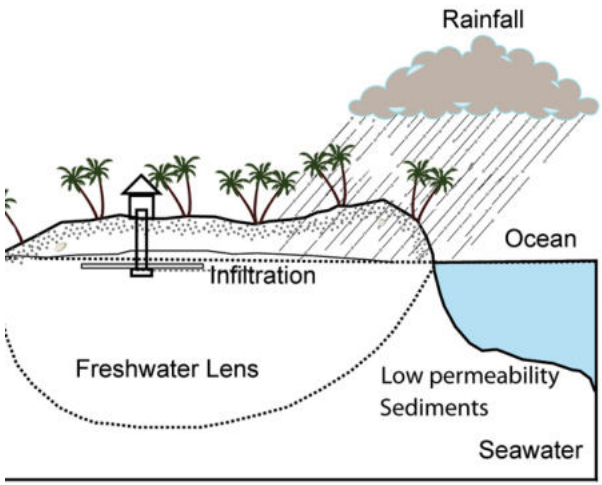
ADB



More severe tropical cyclones

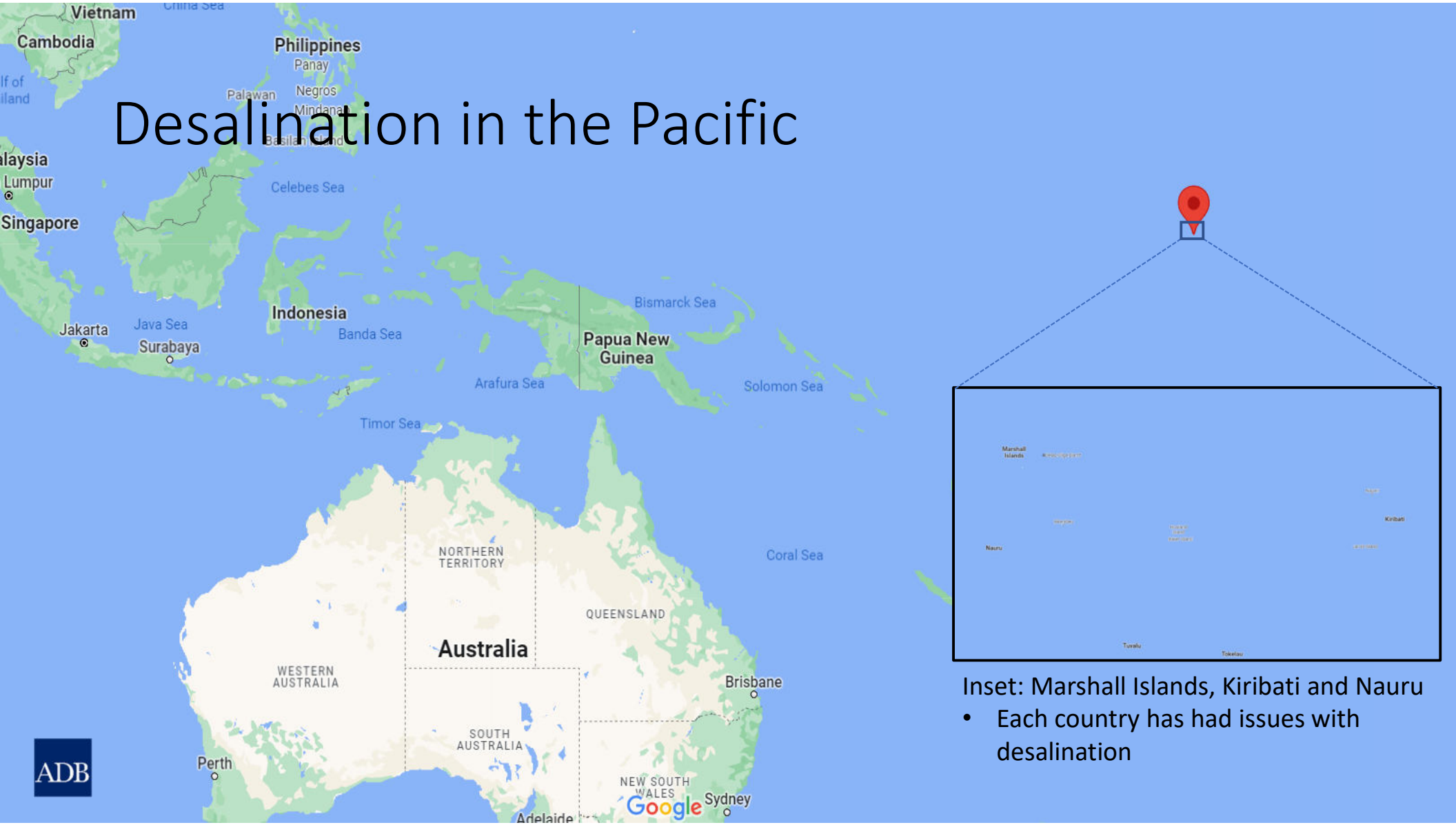


Shifting rainfall patterns

Pacific Island Country Water Security

Image credit: *NASA Goddard Photo and Video (L); UNDP – PACC (R)*

Desalination in the Pacific



Inset: Marshall Islands, Kiribati and Nauru

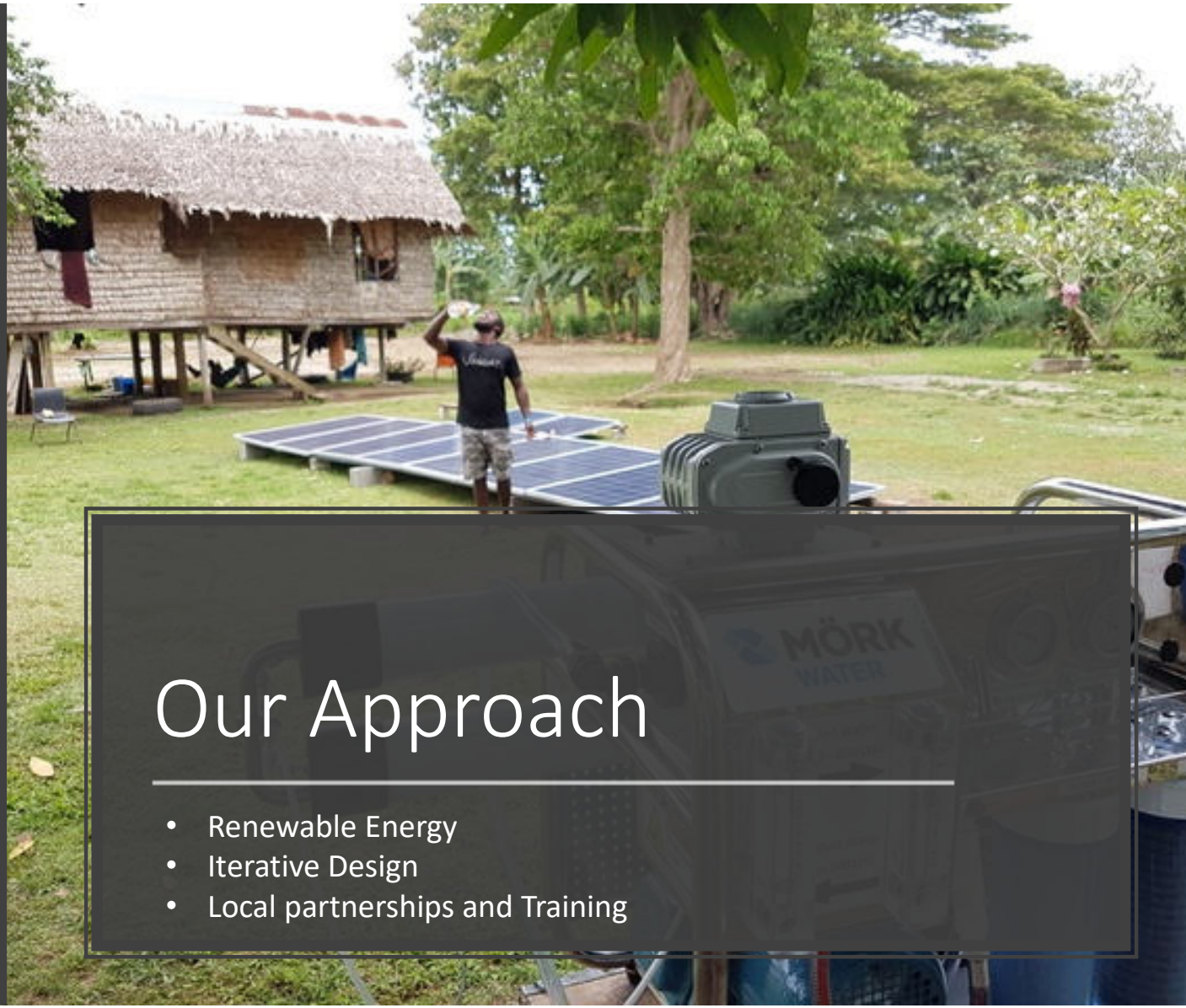
- Each country has had issues with desalination

Lack of community consultation/training

Not designed for local conditions: remoteness, environment

Why does desalination fail in the Pacific?

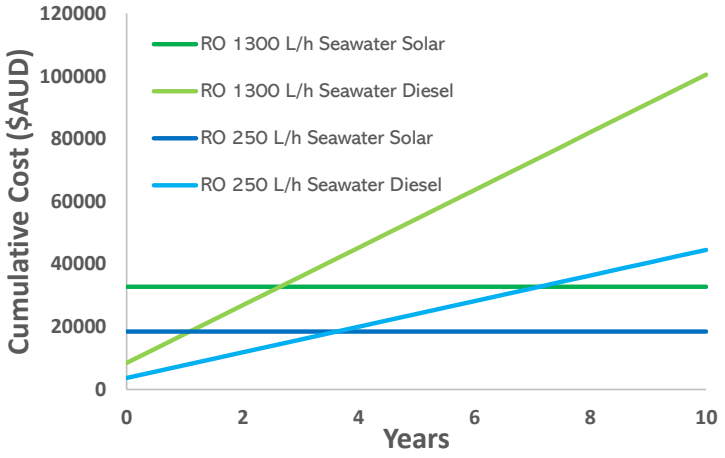
Image credit: *Lesik Aleksandr (R)*



Our Approach

- Renewable Energy
- Iterative Design
- Local partnerships and Training

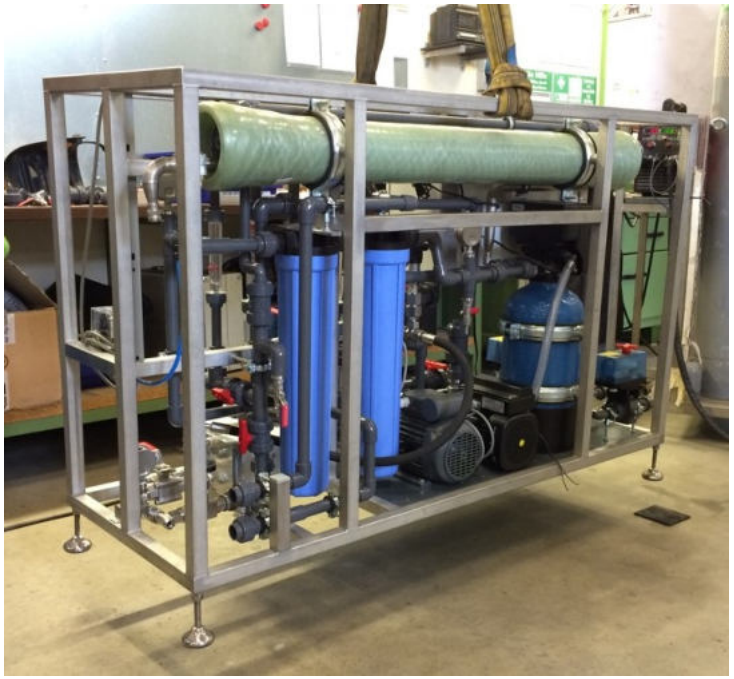
Renewable Energy



Clockwise from top: Vanuatu, Somalia, Papua New Guinea and Zanzibar

Iterative Design

- Easier access for servicing
- Portable
- Secure from vandalism
- Rugged construction
- Simplified operation
- Learn from each project



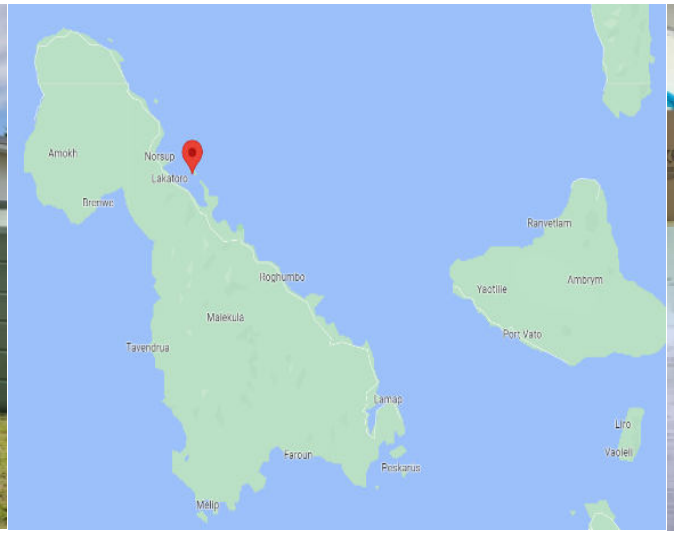
2013

2017

2021

Training

- Training centres
- Training tiers
- Local partnerships



Case Study 1 – Uripiv Island

- Remote island in Vanuatu with insecure water supply
- Moerk Water installed seawater desalination system
- Running successfully since 2018

Case Study 2 – Kiribati Institute of Technology

- Moerk Water has multiple desalination systems in Kiribati
- Partnering with KIT to develop local knowledge in desalination and solar power

Key Takeaways

- **Renewable Energy**
- **Community Consultation**
- **Training**
- **Iterative Design**

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