

# *Engineering Equitable Sanitation for Challenging Environments: Disability, Gender, and Climate Change in Vanuatu*

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Engineers Without Borders Australia

Vanuatu



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**WATER  
&  
WASH 2023  
FUTURES**

Achieving SDG6 in a Changing Climate



#WaWF23



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## What is EWB?



### OUR VISION

A world where technology benefits all.



### OUR MISSION

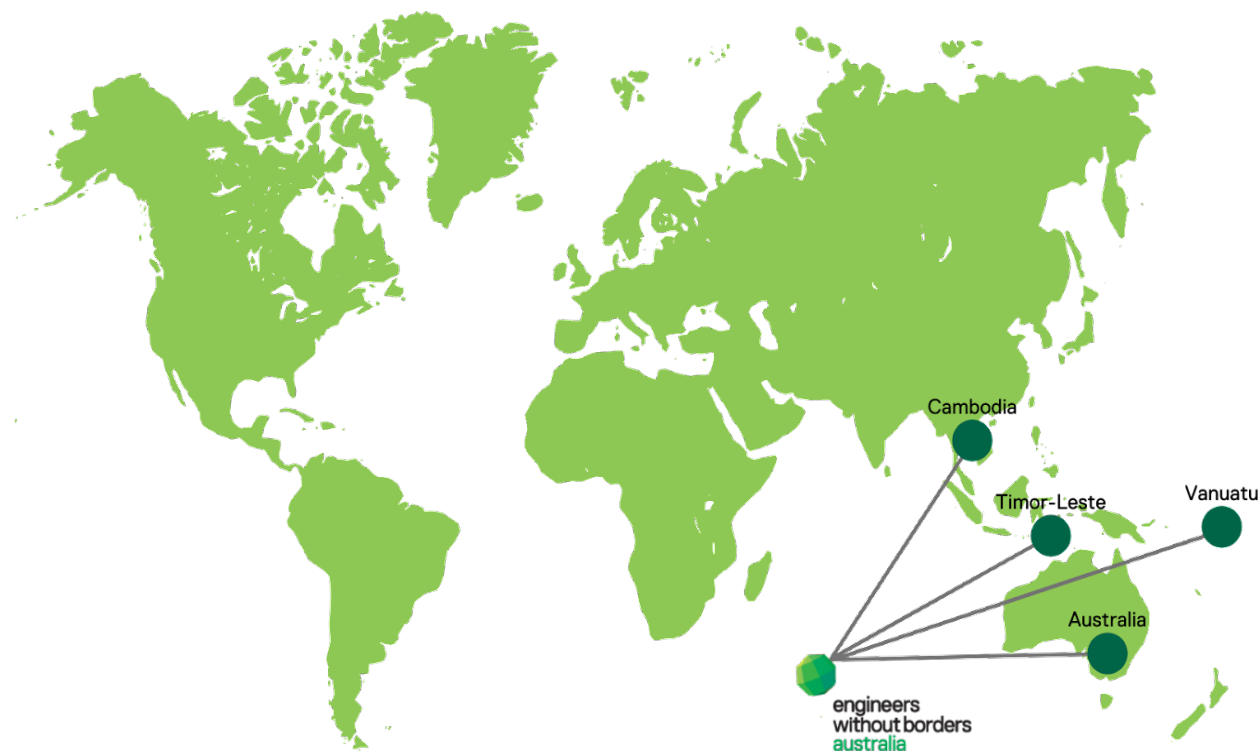
Redefining the purpose and impact of engineering practice as a critical enabler of sustainable development.



### OUR PURPOSE

Harnessing the potential of engineering to create an equitable reality for the planet and its people

# Engineers Without Borders Australia



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# Compost Toilet for Challenging Environments



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# Erakor Bridge Community

- Peri-urban community near Port Vila
- High ground water level
- Reduced access to provincial sanitation services
- Increasing incidence of flooding



*David Kalsal, SCE O&M Committee Member*



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34% of people access basic  
sanitation



25% have a basic handwashing  
facility at home

- JMP, 2020

# Climate Change and WASH in Vanuatu

- Climate change is exacerbating flooding in Vanuatu.
- By 2030 rainfall will increase by 8-9mm for low and high emissions scenarios.
- 24 cyclones are predicted to affect Vanuatu every decade.
- Proper waste disposal to minimise contamination during cyclones and flooding, and surface water management are government priorities.



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# Video 1: Environmental Context



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Steve Tarimaemae  
Technical Program  
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EWB Vanuatu





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# Compostable toilet design



*Toilet exterior, opening ceremony October 2022*



*Rainwater tank for handwashing basins*





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# Mobility-Accessible Design

- Mobility accessible design
- Advisement provided from Vanuatu Society for People with Disability
- Ramp added for wheelchair user
- Dimensions adjusted for wheelchair users





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# Gender-Responsive Design



*Men's urinal and unisex riser*



*Women's urinal and unisex riser*



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## David Kalsal

Operation &  
Maintenance  
Committee Member

I am a young leader in my community I am very  
passionate about advocating on the impacts of climate

# David Kalsal

Operation &  
Maintenance  
Committee Member



**Hi, My name is David Ohken Kalsal. I am from Erakor and I live here in my community at Ekoftau at Erakor Bridge.**

Thank you for listening!

ENGINEERS WITHOUT BORDERS AUSTRALIA

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