Winnovators 2024

Papua New Guinea Sanitation and Hygiene Challenge

WaterAid

The Challenge

Devise innovative and sustainable solutions to address the following pressing issues, with a focus on technical solutions capable of capturing, containing, and treating sanitation waste to ensure environmentally sustainable disposal practices in a challenging peri-urban coastal area.

Traditional Motu households extending over the coral sea coast, Pari Village, Port Moresby

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Background

The Motu Koitabu people are the traditional landowners of the greater Port Moresby area. Residing in eight main urban villages within the Port Moresby city boundary.

Traditionally, the Motuan (Motu) people were seafarers, residing in coastal communities and trading clay pots, fish and sago to the Gulf of Papua and Kikori Region. The Koitabu (Koita) people were Motu trade partners from inland areas of central province. Over time, the Koitabu people settled in most but not all of the Motuan communities along the coast, namely Hanuabada, Tanobada, Tatana, Vabukori, Mahuru and Pari. Over time, the Motu-Koita people became so tightly inter-married that ethic distinctions are virtually irrelevant.

Traditional Motu households extending over the coral sea coast, Pari Village, Port Moresby

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Background

Traditional Motu-Koita houses were constructed on high posts over the sea, however today households are mixed. While traditional houses have been retained, significant dwellings are now scattered through inland areas within Motu-Koita villages. The dwellings utilise galvanised iron roofing and semi-permanent to permanent super-structures. Motu-Koita villages have high population density and limited space. It can be common for households to have 10-20 occupants.

Outside Hanging toilet, Pari Village NCD

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Background

Traditional Motu households are elevated on 3-5m wooden stilts, extending over the ocean. The households are connected by wooden walkways. Generally, households along an individual walkway consist of a related family group known as a “clan”.

At the end of the walkways are shared hanging toilets that are generally constructed from salvaged materials. The toilets have no plumbing, water supply or handwashing facilities. Faeces and other solid waste such as pads drop directly into the ocean below and wash up on the shore or are taken by the tide.

Inside Hanging toilet, Pari Village NCD

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What's the challenge?

Devise innovative and sustainable solutions to address these pressing issues, with a focus on technical solutions capable of capturing, containing, and treating sanitation waste to ensure environmentally sustainable disposal practices in a challenging peri-urban coastal area.

The unique challenge these coastal communities are facing is exacerbated by high population growth, traditional sanitation practices (need for behavior change), impacts of climate change and unreliable water supply.

There are unique engineering challenges to retrofit hanging toilets and convert them into hygienic toilets where excreta is effectively captured, contained, emptied, treated and disposed of. For example the height of the hanging toilets (3-5m above sea level), the high costs of potential solutions, challenges in emptying contained excreta, acceptance for households to handle and reuse treated excreta, no existing solution to manage menstrual hygiene materials.

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What do you have to submit?

A solution in the form of **one or more** of the following:

- 1,000 word report (this does not include appendices)
- A3 poster/board
- 5-minute video
- 10-slide PowerPoint

Final submissions are due **Friday 30th August.**

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What can you win?

- Best Solve – Water
- Best Solve – Sanitation & Hygiene
- Best Solve – Advocacy
- Best Fund

If your team excels in the **Solve and Fund** Challenges:

- Overall Champion

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What are the next steps?

- Contact the Winnovators team at WaterAid with questions – we're here to help **auswinnovators@wateraid.org.au** .
- Don't forget to capture your journey! Remember to take photos during your meetings, discussions, and activities, and share them with WaterAid to document your Winnovators experience.
- See the **Submissions Examples** for Solve and Fund on the resource library.
- Start preparing your fundraising pitch for the seed funding, due 10th May.
- Start thinking the framework of your selected 'Solve' challenge. In no more than 500 words, prepare an outline and send to WaterAid on auswinnovators@wateraid.org.au. It is not part of the submission judging. This is to help you set a framework for your chosen challenge at the start, and also for WaterAid to be able to provide feedback on your initial direction and thinking.

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Thank You

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