

Application Number:
Applicant First Name:
Applicant Last Name:
Email:
Organization: Wateroam
Category: Water
Country: Singapore

General Information

This category recognises organisations that can demonstrate innovative, impactful and inspirational sustainability solutions in the areas of water that include, but are not limited to:

- Ensuring access to safe and affordable drinking water
- Ensuring access to sanitation and hygiene
- Increasing water use efficiency
- Improving water quality

Organisations must also demonstrate a clear vision and long-term plan to further deploy their solution and scale up their impact, as well as inspiring others to follow suit by advancing sustainable and human development.

To be eligible for this category, organisations must be a small or medium-sized enterprise (SME), or a non-profit organisation (NPO).

***0.1 Please tell us about your organisation, what kind of work you do, and how it is important.**

Wateroam is tackling the global challenge of contaminated drinking water - a major cause of poor health faced by 2 billion people in rural and disaster-affected communities globally. Such communities are often left with no choice as pipeline water supply is unavailable and bottled water is too expensive. Wateroam solves this problem by designing portable, simple-to-use water filtration systems that convert unsafe water into safe drinking water in a matter of minutes. Our membrane filtration technology operates without electricity and can be implemented for hard-to-reach communities at a cost as low as USD2 per person per year.

***0.2 What is the annual revenue of your organisation?**

- less than \$1m
- \$1m to <\$5m
- \$5m to <\$10m
- \$10m to \$25m

\$25m to \$50m

>\$50m

***0.3 What is the number of employees in your organisation? (numerical value only)**

***0.4 Please select the type of your organisation.**

Small and Medium Enterprise

Non-Profit Organisation

Other

***0.5 Please provide the areas in which your organisation is most active.**

Seawater

Groundwater

Surface water

Wastewater

Other

***0.6 Please provide the activities in which your organisation is most active.**

Water production, extraction and filtration

Transmission and Distribution

Recycling & Wastewater

Project Development & Deployment

Investment

Research & Development

Other

***0.7 In one sentence, what is your sustainability solution?**

Wateroam develops portable water filters to serve disaster-hit & rural communities with clean drinking water

***0.8 Please provide an executive summary of your solution (include market fit, end-user demographics, scale, scope and benefits).**

Many of the vulnerable communities in Asia that require safe drinking water are highly remote and inaccessible. This necessitates the creation of a water filter that is safe, simple and lightweight, all within one system. Our flagship system, the ROAMfilter™ Plus, produces high quality safe drinking water at a significant speed of 200 litres filtered every hour without the dependence on electricity. The ROAMfilter™ Plus is a lightweight system that weighs only 2.5kg, allowing anyone to easily transport the system over any terrain and brought swiftly into hard-to-reach locations. These principles of design along with the integration of water filtration

technology has enabled us to provide safe drinking water to communities that are out-of-reach by existing pipeline water infrastructure and service supply chains. Since 2014, Watroam has provided safe drinking water to more than 89,000 people across 33 countries globally.

***0.9 Have you applied to the Zayed Sustainability Prize before?**

Yes

No

***0.10 Please provide financial information of last three (03) fiscal years.**

***0.11 If you are a for-profit organisation, what is the gross profit margin for past 3 years?**

Example

Innovation

Innovation refers to a novel solution or a transformation of an existing solution that solves a challenge or a need, generates value and brings significant positive impact.

A solution can be a technology, a service or a business model.

The innovation criterion requires organisations to demonstrate that their solution:

- has a unique value proposition;
- is disruptive or transformative;
- is technically and commercially viable; and
- is adopted by the market.

The Prize does not award early stage start-ups, demonstration projects, prototypes or solutions that have not demonstrated any impact on the ground.

***1.1 Please select which of the following statements applies to your solution.**

- A new/novel technology that doesn't exist anywhere else
- Transformation of an existing solution
- Other

***1.1.1 What evidence do you have that supports the above statement?**

Our ROAMfilter™ Plus technology provides an all in one solution that disrupts the need to rely on additional large electricity generators and pumps to be operational. It is portable, simple to use and set up. The hand-pump design allows for instant operation in environments without access to electricity. The system is also designed with versatile power sources in mind and can be driven by a gravity-fed water supply or pipeline to provide safe drinking water on demand. At a flow rate of 250 litres per hour, this system is the most efficient filter for its weight category.

***1.2 Please outline what is the unique value proposition of your solution and how it is disruptive or transformative?**

Traditional tap water supply from centralized water treatment plants are often not available in rural communities due to high capital costs and complex setup processes. Additionally, such infrastructure takes a long time to be built, especially when decisions are influenced by existing political and economic situations. Furthermore, when natural disasters occur, local authorities often struggle to provide sufficient water within the time and funding constraints. Our solutions provide a simple way to gain rapid access to clean drinking water, hence preventing villagers from drinking unsafe water, which can cause fatal, water-borne illnesses such as diarrhoea and dysentery. Wateroam possesses a strong brand that stands out in the eyes of consumers as a company that upholds the following strengths: Quality, Simplicity,

Durability Quality: Systems are highly effective in removing pathogens and is internationally tested for assurance. Wateroam has developed manufacturing know-hows to ensure high quality production of our filtration systems. Simplicity: Systems are quick and simple to operate, maintain, and service without the need for extensive training. Durability: Wateroam filters are built to last, and are the most robust for deploying in hard-to-reach rural destinations while being able to endure the travelling journey.

***1.3 Why is your solution better than existing alternatives? Please explain how your solution is different to that offered by any competitors or others in this space?**

Current competitive solutions include the distribution of bottled water, which is often very expensive and difficult to transport. Large scale water treatment systems can be brought in, but these are typically complex to operate and highly reliant on electricity. Ceramic pot filters are more affordable, however such systems tend to clog up quickly. Unlike existing solutions, our filtration solution is uniquely intuitive to use, easy to maintain, lightweight for rapid deployment, and able to operate under tough conditions. We are also incorporating IoT capabilities to track GPS location, usage levels and provide preventive maintenance alerts.

***1.4 At what stage of maturity is your solution?**

- Proven in an experimental setting but not applied on the ground
- There are 1 or 2 areas of demonstration
- There are 3-5 areas of demonstration
- It is being implemented at a scale up to 10 times more than the pilot phase
- The solution is reaching levels where it is widely recognized as being successful

***1.4.1 Please provide evidence that demonstrates the above statement including information about the number and growth rate of end-users, customers, or clients that have adopted your solution.**

Since 2014, WaterOAM's filtration systems have been distributed to more than 89,000 people across 33 countries in Asia including Cambodia, Indonesia, Philippines, Malaysia, Vanuatu and Myanmar. We have worked with numerous humanitarian relief organizations and corporates such as Red Cross, World Vision, Mercy Relief, Xylem Inc. With clean water, many of these individuals have been able to lead a healthy life so that they can achieve their dreams and ambitions without the distractions of physical ailments. By living in a clean environment, they grow in confidence from an improved quality of life.

***1.5 Do you have a way of protecting your innovations from being copied by your competitors?**

- Yes
- No, but I intend to
- No, I intend for it to be easily replicated by others

***1.5.1 Please explain how, including patent numbers or hyperlinks if appropriate**

Our ROAMfilter Plus system has been granted a patent a utility patent in Singapore (SG11201704191V). Through the PCT application process, the product is also in the “patent pending” process for other countries in the world. Our International PCT Application Number is PCT/SG2016/050562. Besides protecting our innovations by patent, we also possess manufacturing know-hows that enable us to produce high quality ultrafiltration systems that achieve 99.9999% removal of bacteria and 99.99% removal of viruses consistently, as certified by international labs.

Example

Impact

Impact refers to a positive change that addresses social, economic, technological and/or environmental challenge(s) and has proven to make the world a better place by improving the well-being of humanity.

The impact criterion requires organisations to demonstrate that:

- their solution has a positive impact on the quality of peoples' lives;
- they are resilient to potential social, economic, technological, and environmental challenges;
- they have good governance by employing skilled people and establishing fair policies;
- they have a detailed plan of how the Prize money would be used to further increase their impact.

*2.1 Please detail how your solution has improved people's lives?

Since 2014, through purposeful collaboration and partnerships with humanitarian relief organizations & corporates, we have been able to provide more than 89,000 people across 33 countries with daily access to clean drinking water. With clean water, individuals can lead a healthy life so that they can achieve their dreams and ambitions without the distractions of physical ailments. By living in a clean environment, they grow in confidence from an improved quality of life. Through these positive changes, they can work more productively, increase their employability and have access to better livelihoods.

*2.2 How many people have directly benefited from your solution? (numerical value only; no commas or periods allowed)

89000

*2.3 Does your solution provide access to clean and affordable water, sanitation and hygiene?

- Yes
 No

*2.3.1 If yes, please elaborate, how?

Wateroam provides NGOs, governmental relief organizations, communities and individuals with portable water filtration devices that can provide clean water in a matter of minutes. Our water filtration systems are easy to use (simple), cost-effective (affordable), long-lasting (durable) and highly mobile (portable), allowing affected residents to easily convert unsafe fresh water into clean drinkable water on the spot.

*2.3.2 Does your solution reduce the unit cost of water?

- Yes
 No

If yes, please indicate:

How much in percentage terms?	3205
How many people have benefited from this cost reduction?	89000

***2.4 Does your solution increase water use efficiency?**

- Yes
 No

***2.5 Does your solution contribute to reduced water pollution?**

- Yes
 No

***2.6 Which of the following challenges have you faced in the past 5 years. (you can select multiple options)**

- Economic
 Environmental
 Political
 Societal
 Technological
 Other
 None

***2.6.1 Please elaborate how you have overcome the challenges selected above?**

Certain communities that we work with for the first time have existing practices of drinking directly from murky water sources and not washing their hands after using the toilet, while believing that their dysentery situation is not related to these practices. To overcome this, education on identifying safe water sources and practicing good hygiene is crucial even when the community is provided with our filtration systems. It is vital for us to work closely with local partners who have good relationship with locals to help champion the importance of safe drinking water.

***2.7 Please elaborate how your solution has improved inclusion and equality? (e.g., gender equality, inclusion or empowerment of disadvantaged community members etc.)**

By providing families and communities with on-demand access to safe drinking water, women and girls who used to bear the burden of walking for hours to collect water are now relieved of

this burden. During the walk to collect water, women in rural or refugee camps are often susceptible to assault and animal attacks. With proper water filtration infrastructure set up, women are now able to spend quality time with their families while younger girls are able to focus better on their education and studies. They will also avoid facing long-term injuries to their neck or back.

***2.8 How many jobs have been created as a result of your solution? (numerical value only)**

71

***2.9 Has your solution created any impact beyond 'Water', in the following areas? (you can select multiple options)**

- Health
- Food
- Energy
- None of these

***2.10 Please describe what other water issue(s) you have targeted and summaries the outcomes and impact. (Please include any relevant metrics)**

The other water-related issue that we target is the reduction of carbon emissions as our system removes the need for boiling of water. As our system is able to remove bacteria and virus physically through membrane filtration, there is no need to utilize gas or wood to boil water at 100 degrees Celsius. There is substantial carbon footprint saving for each household which does away with the need to boil water on a daily basis.

***2.11 Who was responsible for governing your solution? Please note both specific individuals in your organisation as well as referencing advisory boards, steering committees or other governance bodies.**

***2.12 Please provide a detailed plan on how you would use the Prize fund to further increase your impact? (Include project objective, scope, key performance indicators, and timeline)**

***2.13 Which of the following Sustainable Development Goals (SDGs) does your solution address? (You can choose multiple options)**

- SDG 1: No Poverty
- SDG 2: Zero Hunger
- SDG 3: Good Health and Well-being
- SDG 4: Quality Education
- SDG 5: Gender Equality
- SDG 6: Clean Water and Sanitation
- SDG 7: Affordable and Clean Energy
- SDG 8: Decent Work and Economic Growth
- SDG 9: Industry, Innovation and Infrastructure
- SDG 10: Reduced Inequality
- SDG 11: Sustainable Cities and Communities
- SDG 12: Responsible Consumption and Production
- SDG 13: Climate Action
- SDG 14: Life Below Water
- SDG 15: Life on Land
- SDG 16: Peace and Justice Strong Institutions
- SDG 17: Partnerships to Achieve the Goal

***2.14 How is your solution or organisation addressing COVID-19 pandemic?**

Inspiration

Sheikh Zayed bin Sultan Al Nahyan, the founding father of the UAE, was a pioneering advocate of global sustainability and human development. Leading by example, he placed great value in the pursuit of socio-economic development that meets the needs of both current and future generations. Continued through the Prize, Sheikh Zayed's legacy is a source of inspiration for the entire world.

The inspiration criterion requires organisations to demonstrate that their solution:

- reflects Sheikh Zayed's core values – tolerance, sustainability and human development that were central to his own approach and actions;
- has inspired and influenced other organisations to advance sustainable and human development; and
- has further inspired sustainable actions from the wider community by instigating behavioural changes.

***3.1 What (or who) inspired you to develop this solution and how does that reflect Sheikh Zayed's legacy?**

Wateroam's three founders met as undergraduates at a water initiative programme in the National University of Singapore. Having witnessed children and adults in rural communities across Asia drinking from contaminated water sources, the trio realized that these communities should not have to suffer from waterborne diseases in the 21st century. Instead, they deserve equal access to safe drinking water as the rest of the world. Just as Sheikh Zayed had great vision of uniting the Emirates to unlock exponential socio-economic and humanitarian development, Wateroam is building a brand story that calls for global unity towards enabling universal equal access to clean drinking water. Sheik Zayed also placed significant emphasis on pursuing development that addresses the needs of the current and future generations. In line with this emphasis, Wateroam has prioritized the development of simple, intuitive water filtration system designs to address current water challenges, while constantly developing new innovations to tackle the future challenges that are arising due to declining water quality and increasing water pollution.

***3.2 What is your organisation's long term vision for sustainable development in the next 5 years and why is it realistic?**

Wateroam aims to provide 30 million people globally with access to safe drinking water. To do so, Wateroam will also be expanding our solutions and innovations to reach households globally and provide them with affordable means to obtain safe drinking water. This is possible by identifying manufacturing and technology partners that are able to co-develop innovative filtration solutions. This may also involve inclusive financing schemes, pay-per-use, or service-based delivery, depending on which model works best for local customers. Wateroam aims to develop complementary software product to expand the application of the hardware products available. This includes simple-to-use water test kits that enable quick water testing, and a robust mobile application that supports users in monitoring their systems more

effectively. We will also set up an Online Water Impact Center which is intended to be an online information & education database to equip individuals, NGOs and corporates with comprehensive water knowledge. Armed with water knowledge, they can then utilize Wateroam products to impact the communities they serve more effectively.

***3.3 If you won the Prize, how many more people do you estimate would benefit from your solution over the next five years? (numerical value only)**

1000000

***3.4 Please elaborate on whether you are working with (or worked with) other groups or organisations to achieve your impact and how have you inspired them to advance sustainable and human development?**

Through the Wateroam Partnership Programme, we have been actively engaging Sponsors and Champions around the world to deploy safe drinking water to communities in need. Champions are those on the constant lookout for such communities and are ready to head out to the field, whether in rural or emergency situations. Examples of such Champions are Red Cross (Myanmar Floods 2018), Mercy Relief (Philippines Typhoon Haima), Sea Mercy (Vanuatu Cyclone 2020). Sponsors commit to providing resource support to empower Champions to deploy clean drinking water. We have worked with corporates such as Xylem Inc. (Laos flood 2018).

Other Information

*4.1 Please explain why you deserve to win the Prize?

The team at Wateroam is highly determined to put an end to global thirst, having dedicated the last 6 years towards achieving breakthroughs in simplifying water technologies and advocating for behavioural change in water & hygiene practices. By winning this prize, the Wateroam team will be granted the opportunity to develop a wider variety of innovative, affordable water filtration solutions that unlocks greater clean water access to 2 billion people globally who still lack access to clean drinking water. The prize will also help to propel the recognition of the work that is being done at Wateroam, so that the world can also join hands in tackling this global water crisis together and strive towards universal, equal access to clean drinking water.

Impact Video

You are required to submit a video pitch, not exceeding two minutes, We strongly encourage your video to show your solution in action. Additional elements of the video could address the following:

1. what challenge or need are you addressing;
2. what is innovative and unique about your solution;
3. explain how your solution has had a positive impact on people's lives;
4. what is your long-term vision and how the prize money would contribute to this achievement.
5. why should you win the Prize?

https://youtu.be/nUPAJWnka_M

Networking

Responses in this section are not part of the evaluation/scoring process.

Information provided in this section will be used to help increase networking and engagement across the network of Zayed Sustainability Prize applicants, finalists and winners. Please respond to all questions that apply to you.

5.1 Have you been in contact with any previous Zayed Sustainability Prize winners or finalists?

- Yes
 No

5.2 Would you be interested in working with other finalists or winners?

- Yes
 No

5.3 Would you be willing to be matched with a Global High School to support their solutions?

- Yes
 No

5.4 Do you currently have any operations in the UAE at present?

- Yes
 No

5.5 Are you also looking to raise further Project Equity Investment for a future project?

- Yes
 No

Disclaimer:

Due to COVID-19, travel restrictions exist that change frequently. Should you still wish to travel, you acknowledge and agree that:

(i) you shall undertake this travel solely at your own risk;

(ii) Zayed Sustainability and Masdar shall not have any liability towards you or any third party for any loss, damage, illness, expenses or claim arising in connection with or as a result of the above travel; and

(iii) you shall hold Zayed Sustainability Prize and Masdar harmless against any such third party claim.

Example