

Capstone Report

AquaSafe

MQBS3010



MACQUARIE
University

Group Submission

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Chapter 1 - Introduction

AquaSafe is a project born from a shared goal: to provide safe, affordable drinking water to underserved communities while building a sustainable, ethical business. Our product, the AquaSafe bottle, is a manual, non-electric water filtration system designed for use in rural, off-grid areas, specifically targeting Cambodia's Kep Province, where only 35 to 40 percent of households currently have access to clean water. Guided by United Nations Sustainable Development Goal 6 (Clean Water and Sanitation), AquaSafe demonstrates how business principles can meet humanitarian challenges in ways that are both impactful and financially responsible. With a \$1 million endowment and a clear vision, our team has developed a model that targets a 3 percent or higher annual return, proving that purpose and profit can work in tandem.

Business analytics played a key role in the early stages of the project, ensuring our response was data-driven and focused on the areas of greatest need. Displacement caused by climate change and conflict continues to grow, and this shifting environment demands careful forecasting. Analytics helped us identify where the AquaSafe bottle could make the most meaningful impact, using visual dashboards, demand forecasting and scenario planning to turn complex datasets into practical strategies. Through this, we were able to choose target regions wisely and assess the long-term viability of the product. More than just a support tool, analytics shaped the overall direction of the project by turning raw information into clear, strategic decisions.

From there, marketing management brought the solution to life in the real world. We designed a marketing strategy that understood and respected the needs of rural Cambodian communities. The AquaSafe bottle was positioned not just as a health product, but as a practical investment for households already spending money on boiling water or bottled alternatives. Our market research focused on cultural habits, price sensitivity, and distribution challenges, leading to a strategy that prioritised community trust and long-term value. The bottle's low cost, manual design and lack of recurring maintenance make it ideal for areas with limited infrastructure. The marketing plan also considered scale, laying the groundwork for expansion into other regions facing similar water access challenges. This part of the project made it clear that the right message, delivered in the right way, is just as important as the product itself.

The international business dimension ensured that our work was globally relevant and locally effective. It addressed how AquaSafe could grow across borders in an ethical and sustainable way. By researching social, political and economic conditions in potential markets, we were able to design an entry strategy that was realistic and informed. International business also helped us prepare for future growth by thinking through long-term expansion planning, cultural adaptation and global responsibility. This global perspective ensured that our plan was not just a one-time solution but the start of a scalable model with potential to support communities beyond

Cambodia. It encouraged collaboration across the team and pushed us to think about how our local impact could feed into global change.

On the financial side, accounting practices helped us keep the project grounded and cost-effective. We worked with a trusted manufacturer in Ningbo, China, and placed a single bulk order of 30,000 units to secure a reduced price. Production costs per unit were brought down to about 10 AUD, and the total landed cost, including shipping and warehousing, came to just over 11 AUD. These numbers informed everything from revenue projections to tax planning and cash flow management. They also helped us build a clear understanding of what our break-even point would be and what margins we needed to maintain. The accounting work allowed us to align our social mission with a financially sound structure that could stand the test of time.

Each discipline brought a crucial piece to the puzzle, but together they created a complete picture. AquaSafe is more than just a water bottle, it's a collaborative effort to solve one of the world's most pressing problems through careful planning, smart strategy and ethical entrepreneurship. This introduction outlines the foundations of our project, showing how we combined insight from data, creativity in marketing, cultural awareness, sound accounting and strategic global thinking to build something that is both impactful and scalable. With AquaSafe, we aim to show that even in complex global challenges, business can be a powerful force for good.

Chapter 2 - Business Analytics

Displacement caused by conflict, climate events and instability continues to rise globally. For millions forced from their homes, access to clean water becomes an urgent concern. Our team developed AquaSafe, a portable water purification solution designed to meet the needs of these vulnerable populations. As the Business Analytics lead, I forecast demand, identified priority regions, particularly in Southeast Asia, and contributed strategic insights through both quantitative and qualitative analysis. This report outlines how evidence-based decision making informed product direction, supported Sustainable Development Goal 6, and established AquaSafe's viability as a humanitarian solution.

Forecasting Displacement Trends

Using Holt's Linear Trend method in Excel, I developed two forecast scenarios covering the period from 2025 to 2030 (Figure 1). The baseline scenario projects an increase from approximately 5.2 million to 5.6 million displaced individuals (Figure 2). A high-impact scenario (Figure 3), which factors in escalating geopolitical conflict and climate-related displacement, forecasts over 9.1 million displaced people by 2030 (Figure 4).

Figure 1 - Forecast displacement using Holt's Linear Trend in Excel

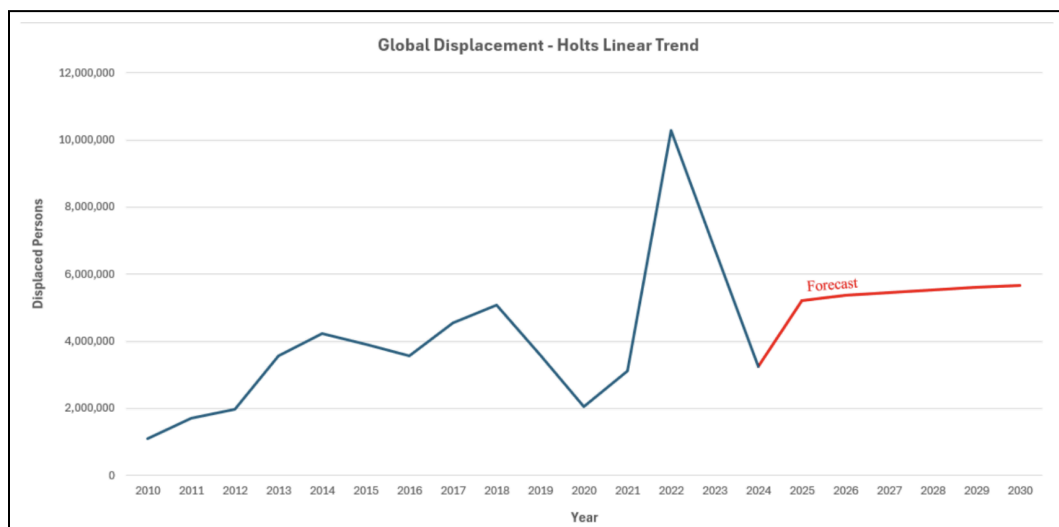


Figure 2 - Baseline forecast showing gradual growth in displacement from 2025 to 2030

| Year | Forecast (Displaced Persons) |
|------|------------------------------|
| 2025 | 5,220,768 |
| 2026 | 5,372,330 |
| 2027 | 5,448,111 |
| 2028 | 5,523,891 |
| 2029 | 5,599,672 |
| 2030 | 5,675,453 |

These projections confirmed a growing need for humanitarian infrastructure, especially portable water solutions in highly vulnerable regions such as Southeast Asia. Based on this modelling, I recommended early scaling of production and prioritising partnerships with major aid organisations including UNICEF. These insights supported the marketing team’s focus on Cambodia’s remote provinces, where displacement and water insecurity converge. It also guided the accounting team’s decision to centralise warehousing in Phnom Penh to enable cost-effective, nationwide distribution.

The forecasts also supported the international business team’s early-entry strategy, which focused on business-to-NGO (B2NGO) partnerships in areas like Cambodia. By integrating analytics into expansion planning, we were able to anticipate demand and identify entry markets that aligned with both humanitarian goals and scalable operations.

Figure 3 - High-impact forecast scenario modelling accelerated displacement due to conflict and climate

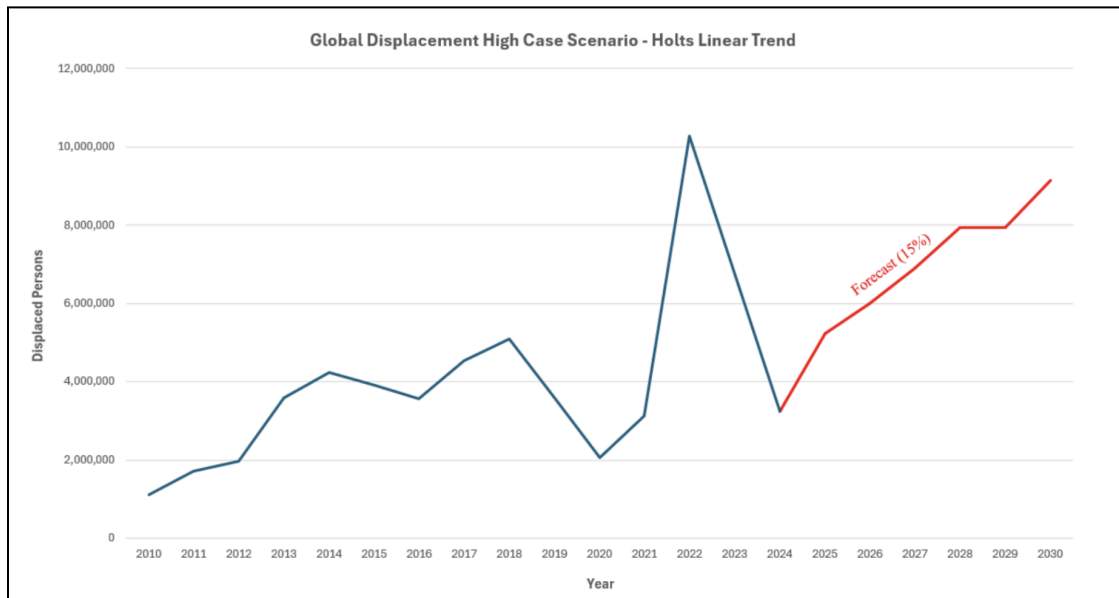


Figure 4 - Projected displacement under high-impact conditions

| Year | Forecast (Displaced Persons) |
|------|------------------------------|
| 2025 | 5,220,768 |
| 2026 | 6,003,883 |
| 2027 | 6,904,465 |
| 2028 | 7,940,135 |
| 2029 | 7,940,135 |
| 2030 | 9,131,155 |

The [Brand, Marketing and Arts Leader](#) stated, “If you want to be seen as a leader, you have to act like one,” and reminded us that “people will have different opinions than you... remove your ego from the decision, that will help get to better outcomes.” These perspectives shaped how I positioned analytics, not just as a technical function but as a strategic contributor. By delivering forecasts that supported planning and product direction, I ensured analytics had a leadership role in cross-functional collaboration.

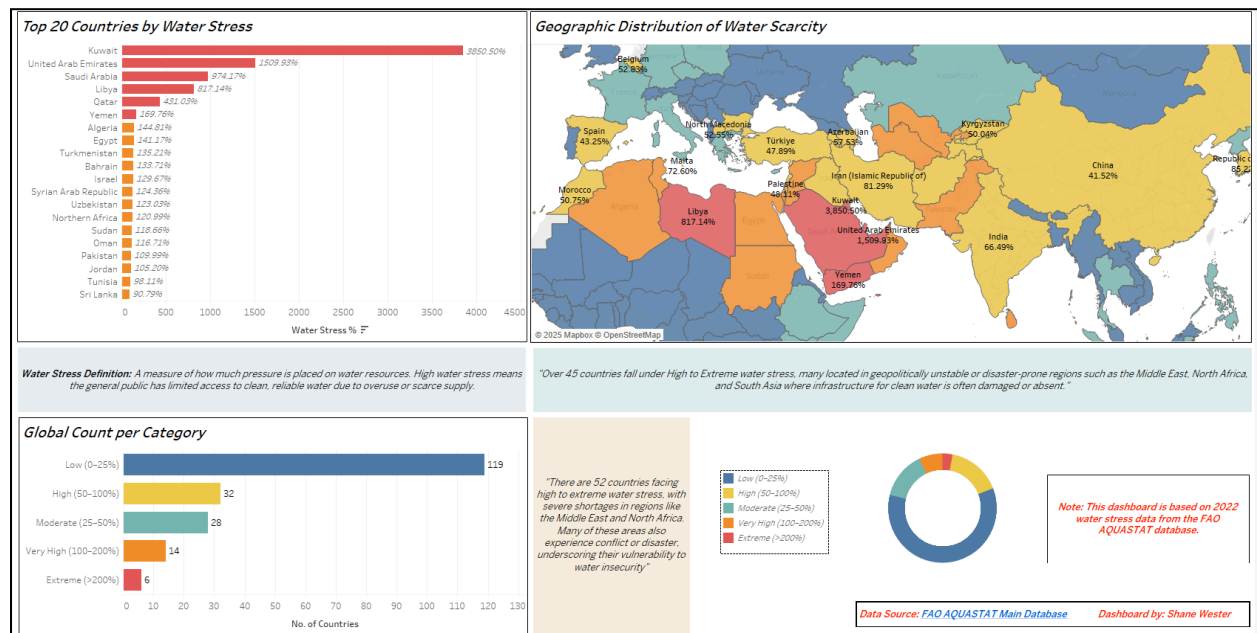
Linking Displacement to Water Scarcity

To determine where AquaSafe could have the highest impact, I overlaid displacement projections with global water stress data from FAO's AQUASTAT. Countries such as Yemen, Pakistan and Libya emerged as high-priority zones. However, Cambodia also showed a convergence of displacement and water stress. The country's dependence on surface water, combined with flooding and rural underdevelopment, created urgency for scalable water solutions.

As a result, the marketing team focused campaign efforts on regions like Kep and Ratanakiri, where surface water is often the only available source. Gleick (2014) supports this approach, noting that "water stress and conflict are often mutually reinforcing, especially in politically fragile regions" (p. 334). My dashboard (Figure 5) visually confirmed Cambodia as a high-impact deployment zone. Strategically, its location provides a regional launchpad for expansion into neighbouring countries including Laos, Thailand, and Vietnam.

This positioning aligned with the international business team's modular expansion model, which used Cambodia as a pilot market before scaling across Southeast Asia. Institutional procurement frameworks and political risk data further confirmed Cambodia's viability as both a humanitarian and business entry point.

Figure 5 - Displacement and water stress identifying priority deployment zones in Tableau



The visual analysis influenced my recommendation to prioritise these zones. Wutich and Brewis (2014) highlight that “resource insecurity, especially access to water, extends beyond availability and deeply affects community resilience and public health” (p. 446). Their insights reinforced the need to address both environmental and social vulnerabilities.

As an [Investment Analyst](#) stated, “You might think your logic is flawless, but if it’s not a business priority, it doesn’t matter.” By aligning analytical findings with operational needs, I ensured the data was both technically accurate and strategically relevant.

Displacement Types and Product Adaptation

The analysis also considered different types of displacement. Conflict-related displacement is rapid and often results in large camps, requiring portable, fast-deploying solutions. Climate-induced displacement, as seen in Cambodia’s seasonal monsoons and droughts, tends to be rural and internal, requiring decentralised systems like AquaSafe. Protracted displacement involves longer-term settlements where durability and ease of use become essential.

These patterns informed product adaptation. The filter had to be portable, electricity-free and low-maintenance. This insight supported marketing messaging around “clean water from

anywhere” and guided accounting decisions regarding affordable materials to keep costs accessible for low-income users in Cambodia.

It also shaped international business strategies such as local manufacturing and supply chain localisation. The data helped identify where co-manufacturing partnerships and social licensing could reduce long-term costs while strengthening community trust.

The [Senior Global Partnership Manager](#) supported the team’s cross-functional approach, explaining: “I say this is the issue, this is the problem... and see what is your perspective... so we can come up with a comprehensive solution.” This mindset helped me integrate feedback from marketing, international business, and finance, strengthening alignment across disciplines.

Estimating Demand and Strategic Use of Data

I estimated that by 2030, between 12 and 30 million people could benefit from AquaSafe. Capturing just five percent of that population would mean 600,000 to 1.5 million users. In Cambodia, over 12 percent of people rely on open surface water and more than 70 percent live in rural areas with unreliable water quality. These statistics positioned Cambodia as a strong candidate for early market penetration and humanitarian deployment.

Analytics supported the marketing team’s campaigns in high-need provinces such as Oddar Meanchey and Kampong Thom, where water reliance data aligned with our projections. Financial planning used these insights to forecast potential revenue and set achievable milestones. The [Biotech Ops Director](#) emphasised that “it’s about the human element in life,” which shaped how I communicated the data, as a narrative about real communities in need. This helped the team stay focused not only on sales but also on social impact.

These projections also informed decisions about resource allocation, including the AUD 200,000 earmarked for tender preparation, NGO trade events and pilot deployments in Southeast Asia. By identifying where needs and infrastructure gaps overlapped, analytics supported the coordination of procurement, marketing and entry plans.

Communication Across The Team

To be impactful, business analytics must be effectively communicated. I used visual forecasts and geospatial overlays to tailor insights for each team. For instance, the Tableau overlays helped the accounting team select Phnom Penh for warehousing, given its central location. The marketing team developed localised messaging and Khmer radio campaigns targeting affected rural communities.

As George, Haas and Pentland (2014) explain, “big data creates value when it is integrated and interpreted across functional domains to enable coordinated action” (p. 323). This principle guided my approach. Rather than being a standalone function, business analytics supported coordinated, cross-disciplinary decisions.

The [APAC Senior Field & Partner Marketing Manager](#) emphasised the importance of audience-focused messaging, stating, “Know your audience and speak to their motivators.” This helped me frame insights based on the audience, for example, focusing on logistics for supply chain teams, user impact for design, and scale for finance and marketing.

The international business team also applied these insights to develop stakeholder engagement strategies. Community-first outreach, built with local leaders and informed by data on media access and trust, became essential for building regional presence. Translating technical findings into community-centred narratives enabled ethical expansion and long-term readiness.

Recognising Limitations in Forecasting

While the models provided useful direction, I acknowledged their limitations. Holt’s method handles gradual patterns well but struggles with sudden changes. To address this, I developed a high-impact scenario using a 15 percent annual increase to simulate crisis surges.

Water stress data also had limits. National figures can obscure local challenges. For example, while India appears stable at the national level, states like Rajasthan face severe water stress. These insights supported our recommendation to work with local NGOs for more precise deployment.

As Business Analytics lead, I encountered challenges sourcing and preparing reliable data. Time-series datasets were scattered and inconsistent. To ensure accuracy, I based analysis on 2022, the most recent year with consistent data, allowing timely and actionable recommendations.

The [Chief Cyber Strategist](#) highlighted that “you should not over rely on AI... it really likes to hallucinate a lot and make up things.” This highlighted the importance of using models as tools rather than definitive answers. Combining analytics with human judgement and local knowledge was critical.

Floridi and Taddeo (2016) support this approach, stating that “data ethics entails not just technical proficiency but a clear understanding of the broader social impact of data use” (p. 2). I treated forecasts as directional and iterative, integrating team feedback and scenario testing to ensure contextual understanding. Zwitter (2014) also notes that “ethical big data use must be rooted in contextual understanding and should avoid algorithmic determinism” (p. 1).

Chapter 3 - Marketing Management

AquaSafe is a portable water filter pump designed to provide safe drinking water from contaminated open water sources such as rivers, ponds and canals. This is specifically designed for the population located in the rural communities where water infrastructure is lacking or non-existent. This product is augmented to not utilise any electricity or solar which is ideal for households that heavily rely on untreated surface water for daily use.

Market Positioning

AquaSafe is positioned as an affordable, durable, and easy-to-use water filter pump designed specifically for low-income and rural communities that rely on untreated water sources (rivers, ponds and canals). It provides a practical solution for accessing safe drinking water without electricity, at a price that fits the lifestyle and income of underprivileged populations potentially bettering their health in the long term.

Key Dimensions of AquaSafe's Market Position

| Dimension | AquaSafe's Position |
|-------------------|---|
| Target Market | Low-income households, rural families, and communities with limited clean water access |
| Price Point | Low-cost, one-time purchase, more affordable than bottled water or electric filtration |
| Functionality | Manual, non-electric, lightweight, durable, and easy to use |
| Competitors | Boiling water (traditional method), bottled water, expensive electric filters |
| Distribution | Local retailers and direct-to-community sales |
| Value Proposition | Empowers families to purify unsafe open water themselves with minimal cost or knowledge |

Market Segmentation

Geographic Segmentation

| Segment | Characteristics |
|--|--|
| <ul style="list-style-type: none">Disaster-prone regions | <ul style="list-style-type: none">Areas affected by floods, earthquakes, or droughts |
| <ul style="list-style-type: none">Remote rural communities | <ul style="list-style-type: none">Regions with poor water infrastructure |
| <ul style="list-style-type: none">Low-income urban slums | <ul style="list-style-type: none">Dense populated areas with poor sanitation |
| <ul style="list-style-type: none">NGO logistics hubs | <ul style="list-style-type: none">Areas used by aid organisations for distribution |

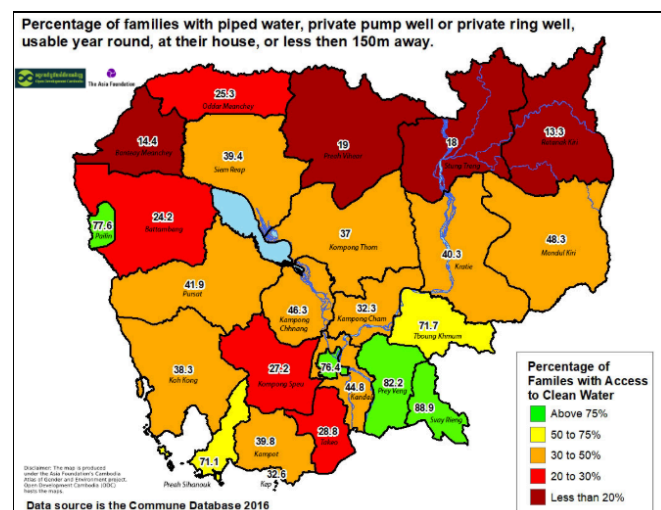
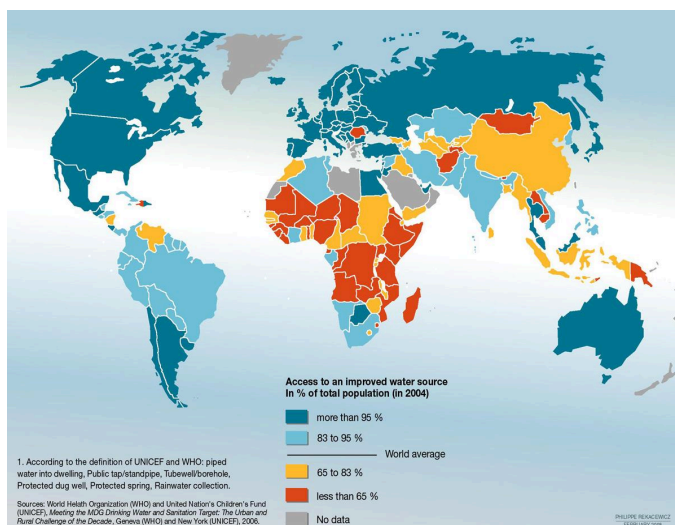
Psychographic Segmentation

| Behaviour Type | Characteristics |
|--|--|
| <ul style="list-style-type: none">Benefit sought | <ul style="list-style-type: none">Safe drinking water, independence from unreliable infrastructure |
| <ul style="list-style-type: none">Usage rate | <ul style="list-style-type: none">Moderate to high |
| <ul style="list-style-type: none">Loyalty status | <ul style="list-style-type: none">Potential for strong brand loyalty if product proves reliable |
| <ul style="list-style-type: none">Readiness to buy | <ul style="list-style-type: none">High in emergencies or awareness campaign |

Target Market

AquaSafe's primary target market includes rural and peri-urban communities in low-to-middle income countries where water accessibility is primarily through open sources such as rivers, lakes, ponds, canals and shallow wells. According to UNICEF and WHO, regions shaded in red and orange represent the significant portion of the population lacking access to safe drinking

water, often relying on untreated water surface sources accommodating to their daily lifestyle. Moreover, the second figure is a visual representation of Cambodia's major cities' accessibility to water within their region. It comes with no surprise that Cambodia is a struggling region with accessibility to clean water hence, the foundation of AquaSafe is to ensure that these underprivileged locations are an effective illustrations in utilising AquaSafe's water pump. These areas are prime candidates for the deployment of water filter pumps to provide immediate and sustainable access to clean water ensuring long-term health benefits. The [Analyst at Macquarie Group](#) stated that "We must ensure our marketing is not opinion-based and only factual". This resembles highly to AquaSafe's water pump ensuring that we provide full transparency and deliver a truthful product that potentially better one's wellbeing.



AquaSafe's main focus is to ensure that below the world average population does have access to improved water sources majorly bettering their health and preventing life expectancy declines from certain illnesses and diseases. Specifically, we will be targeting Southeast Asia first primarily entering the Cambodian market as the majority are struggling to access clean water. According to macro trends, Cambodia's access to clean water from 2018 to 2022 increased from 27.30% to 28.47%. AquaSafe is to ensure that Cambodia's access to clean water is integral in preventing major diseases and infections in hopes to decrease the overall percentage in the future endeavours.

There is a low percentage of people using drinking water from an improved source that is accessible on premises, available when needed and free from faecal and other sources of contamination. Cambodia is facing detrimental challenges in the rural regions, only 18% of rural households have access to safely managed water sources (Open Development Cambodia, 2016). Approximately 12% rely on open water surfaces, and 7.5% use unimproved water sources for drinking. Moreover, it is important to understand that harmful contaminants include industrial, agriculture, and household waste, as well as natural pollutants like arsenic that is detrimental to the population's health..

Statistics Of Province Accessibility

According to the national water access data and rural development assessment, below are the provinces in Cambodia that have access to clean water.

| Province | Households with Access to Clean Water |
|---------------------|--|
| Oddar Meanchey | 22.5% |
| Preah Vihear | 22.9% |
| Ratanakiri | 26.6% |
| Mondulakiri | 27.5% |
| Kampong Thom | 29.0% |
| Stung Treng | 30.0% |
| Kratie | 32.5% |
| Kep | 35.0 - 40.0% |
| National Rural Avg. | 20.0 - 40.0% |

Kep is a small coastal province in southern Cambodia, bordered by the Kampot province and Thailand, struggles with access to safe, reliable drinking water. Kep rural households in Kep rely on open water sources through ponds, canals, rainwater collection and seasonal streams. Such water sources are highly susceptible to contamination from agricultural runoff, human waste, and stagnant water, especially in the dry season when water levels drop and concentrate pollutants (EuroCham Cambodia, 2017).

How AquaSafe Can help in Kep

| Challenge | How AquaSafe Helps |
|-------------------------|--|
| Unsafe surface water | Filters out bacteria, parasites, and sediments from open sources |
| Lack of electricity | Solar-powered system functions off-grid |
| Low income | Durable and affordable long-term alternative to bottled water |
| Poor hygiene conditions | Reduces disease burden by ensuring safe drinking water |
| Remote households | Portable and easy to use without technical skill |

Kep Province presents a strategic opportunity to introduce AquaSafe to communities most in need. With high exposure to unsafe open water, limited infrastructure, and seasonal water scarcity. AquaSafe offers a live-saving, cost-effective, and sustainable solution. Primarily targeting this region could majorly serve as a pilot area for scaling AquaSafe products across Cambodia and the Mekong subregion.

1. Consumer Behaviour

Kep's majority of households earn a modest income that is heavily dependent on fishing, farming and tourism-related jobs. These incomes are considerably low as their rural communes are

socioeconomically struggling. It is important to understand their spending priorities, it includes their food, educational fees, basic health needs and bottled water for clean water.

Most purchases are made in cash at local markets that all the people have access to ensuring that travelling will not void the opportunity. Similarly, will benefit on the product's durability, multi-use, and visible-benefit products. More importantly, there's a strong tendency to evaluate spending on necessity vs. luxury. Spending behaviour on the AquaSafe pump product is crucial to increase awareness and attraction to neighbouring people increase the need of purchasing the product.

2. Digital Marketing

To reach rural and semi-urban households or population as they experience low recreational activities and in comparison to other major cities have lower tourism attraction, however, social media usage is high due to affordable smart phones providing accessibility to various media channels. This is an ideal opportunity for AquaSafe to utilise advertising the water pump product showcasing the ability to source untreated water to clean and safe drinking water for daily consumption and activity.

1. Television

Television is the most trusted and widely consumed medium, especially in rural and older populations as the older generation are more used to it and affordable. Popular national channels that are watched the majority of the time are TVK (National Television of Kampuchea), Bayon TV and Hang Meas HDTV. These channels have high penetration across rural Cambodia, since it's the most trusted and consumed, advertising in short form in certain media breaks in Khmer (language) demonstrating the product's functionality.

2. Social Media

Social media is capitalised but, most specifically, Facebook and Facebook Live. Facebook is the most popular digital platform in Cambodia in comparison to other social media platforms that are more globally used such as TikTok and Instagram. Statistically, the user count is 13 million in Cambodia from a population of an estimated 17 million. High engagement with video content especially in Facebook Live, is a common tool to showcase product demos, influencer reviews

and doing Q&As and sales promotion. The advertising tactic AquaSafe will be using in Facebook will be short videos around 1-3 minutes explaining the product's benefits and the importance of it, live demonstrations before and after filtering the water and, health or family-orientated messaging/testimonials persuading to purchase such a product to encourage health longevity.

3. Radio

Radio is influential mainly in rural areas in Cambodia for those that do not watch Television or cannot afford smart phones. It is impactful and effective as the radio can be listened anywhere and anytime as certain areas have limited internet with prolonged battery. Furthermore, all radios are bound with key radio stations listed in the TV and accessing the news. This is ideal for short and repetitive awareness and is perfect for word of mouth that can be passed along to the surrounding people.

6. B2C Sales and Selling

According to the National Institute of Statistics, the average monthly household income per capita in Cambodia was approximately 1,591.88 USD annually in 2021 equating to about 132.66 USD per month. This money is essentially spent on basic necessities with limited disposable income for additional expenses. The [Award Winning Entrepreneur](#) said that “If you want something you must communicate”. AquaSafe will need to effectively showcase the usefulness and functionality to create an authentic product contributing greatly to the Cambodian consumers. Household expenditures are primarily allocated to essential needs:

- Food and Alcoholic Beverages: Approximately 199,000 KHR per person per month in 2021
- Health: Around 20,000 KHR per person per month in 2021

The AquaSafe water filter pump is designed to be a cost-effective solution for clean water access:

- One-Time Investment: The pump requires a single purchase, eliminating ongoing costs associated with boiling water (fuel expenses) or purchasing bottled water
- No Electricity Needed: Its manual operation is ideal for areas without reliable electricity, common in rural Cambodia

- **Durability:** Built to last, reducing the need for frequent replacement or maintenance

By investing in AquaSafe, households can reduce monthly-health related expenses by minimising waterborne disease, leading to fewer medical bills and improved overall well-being.

The product is also tailored to fit seamlessly into the daily routines of Cambodia families:

- **Portability:** Lightweight design allows for easy transportation between home and fields
- **Ease of Use:** Simple operation ensures that all family members, regardless of age, can use it effectively
- **Maintenance:** Minimal upkeep required, saving time and additional costs.

Ultimately, the AquaSafe water filter pump presents an affordable and practical solution for Cambodian households, aligning with their spending behaviours and addressing the health critical need for clean water access in their lives.

Chapter 4 - International Business

Globalisation and Responsibility

Access to safe drinking water is not just imperative for public health—it's a human right and a developmental necessity. For AquaSafe to achieve meaningful scale and impact, its international strategy must extend beyond product exportation. Navigation of geopolitical volatility, institutional procurement frameworks, and diverse regulatory ecosystems is crucial to embed itself into the global water security conversation.

As discussed, the internationalisation of AquaSafe begins in Southeast Asia, particularly Cambodia, but is designed with a view to modular expansion in mind. Through partnerships with global institutions such as UNICEF and regional NGOs, AquaSafe can position itself as a market-conscious solution, integrating CSR to be capable of navigating international business environments shaped by both urgent needs and structural constraints.

As shared during the guest lectures, “If your product can't adapt to regional regulation, infrastructure, or political climate—it won't scale, no matter how good it is.” This insight grounded operational design and the expansion roadmap for the company.

Entry: B2NGO First, Then Embedded Local Partnerships

AquaSafe's market entry strategy prioritises **Business-to-NGO (B2NGO)** and **Business-to-Government (B2G)** models. Initial contracts will be pursued with UNICEF, WHO, and regional emergency management agencies across Southeast Asia. These actors will not only offer volume-based procurement but also help with reputation leverage.

To support this, AquaSafe has allocated AUD 200,000 for business development, covering trade fairs, NGO procurement summits, and bid preparation. As noted by the Procurement Lead at World Vision Asia-Pacific, "Your first tender win is your ticket to credibility—treat it like your Series A funding." The tender strategy will include key pilot deployments in the Kep Province (Cambodia), directly followed by expansion to Laos and Vietnam—regions which are similarly impacted by surface water contamination and infrastructural deficits, allowing for similar market segmentation.

As operations scale, AquaSafe will be able to localise supply chains through licensing and co-manufacturing arrangements, helping reduce cost-to-serve, and also building resilience against foreign exchange volatility. This aligns with the strategic recommendation from the Operations Manager at WaterAid International: "Localise your value chain not just to cut costs, but to build social license and trust." In doing this, AquaSafe not only increases rapport with the community, but also gains a physical presence in new regions, setting the company up for long term success over a gradual international expansion.

Institutional Procurement

Institutional procurement is a complex process, requiring a company's alignment to international standards. AquaSafe has been built to meet or exceed both UNICEF's product safety, and procurement requirements. This includes ISO-certified filtration to establish positive relationships and publicity, and anti-counterfeit packaging, to reduce the negative effects 'knock-offs' can have on customer relationships and brand trust. This compliance-first model shows Corporate Social Responsibility (CSR), and also supports procurement approval and creates opportunities for long-term supply contracts.

Our team needs to consult frameworks from the UNGM (United Nations Global Marketplace) to help ensure alignment. Participation in UN business seminars, mentioned and included in the allocated budget, will also help us to foster institutional recognition and pre-qualification. This not only streamlines future tendering, but also signifies the credibility of AquaSafe, multiplying the effectiveness of said procurement, and increasing visibility with regards to other agencies.

As stated during the MQBS3010 guest lectures, “Certification isn’t a hurdle—it’s a sales tool. The moment you’re listed on UNGM, you become a ‘known quantity.’”

Risk and Political Environment: Regional Readiness Assessment

International expansion comes with significant exposure to political risk, currency volatility, and changes in regulations. A regional readiness assessment was conducted using the Global Risk Index (GRI), Transparency International’s Corruption Perception Index, and local water governance data.

For example:

- Cambodia scores 24/100 on Transparency International’s index, indicating a need for local NGO partnerships to navigate procurement ethics.
- Laos faces high import tariffs on filtration products; however, a bilateral aid agreement with Australia could enable tax relief under a development framework.
- Vietnam presents a more structured manufacturing ecosystem, making it suitable as a long-term production hub.

To mitigate risk, AquaSafe maintains a **contingency reserve of AUD 180,000**—approximately 18% of our initial investment—to safeguard operations against regional instability or sudden regulatory shifts.

As recommended by a Risk Director in the guest lectures, “Have a plan not just for supply chain disruption—but for media fallout, political backlash, and failed tenders. You’ll likely face at least one of those.”

Cross-Cultural Dynamics and Local Stakeholder Engagement

International business is not just transactional—it is also relational. AquaSafe’s community-first model is underlined by a deep cultural awareness, as well as engagement with local actors. In Kep Province, marketing materials are designed in Khmer, and advertising relies on platforms like Facebook Live and radio, as these are the region's most trusted sources of information.

Aligning with Hofstede’s Cultural Dimensions, Cambodia achieves high scores on **Power Distance** and **Collectivism**. This cultivates the need to develop partnerships with village leaders, religious figures, and local health workers. AquaSafe kits will be introduced through community demonstrations co-hosted by trusted local intermediaries. This will allow AquaSafe to gain the trust and respect of the community, thus strengthening the burgeoning customer relationship being forged—a key step in gaining market share internationally.

The Managing Director at an APAC-focused impact investment firm reminded us, “Success in emerging markets depends less on your profit margin and more on your permission to operate.” This mindset informs our stakeholder outreach and ethical positioning.

Ethical Globalisation and SDG Alignment

AquaSafe’s international expansion consistently aligns with multiple UN Sustainable Development Goals. Specifically, its core focus is SDG 6 (Clean Water and Sanitation), but it’s creation, while unintentional at first, now also supports:

- **SDG 3:** By reducing the prevalence of waterborne disease.
- **SDG 13:** By replacing energy intensive purification methods with a manual, zero-energy solution.

To ensure that global expansion doesn't compromise ethical intent, AquaSafe's pricing strategy will remain flat across all markets—AUD 30 per unit—subsidised by partnerships, rather than price inflation. This is critical in helping avoid "aidwashing," a process where products are marketed as humanitarian while extracting value from vulnerable populations.

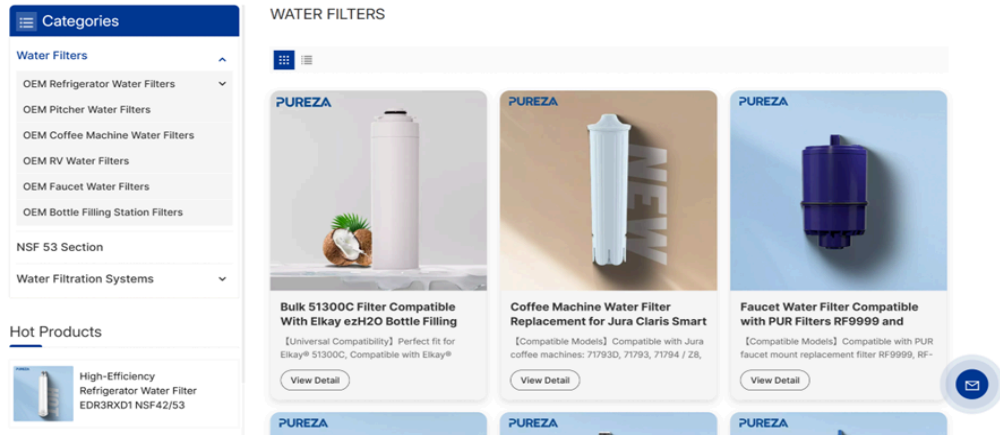
A strategy consultant at a humanitarian logistics firm stated, “Don't just deliver impact—design your profit model to sustain it. Otherwise, you're just temporary relief.”

Long-Term Globalisation Strategy: Southeast Asia to Sub-Saharan Africa

AquaSafe's five-year roadmap includes a sizeable scale-up into Sub-Saharan Africa. This region exhibits challenges that are markedly similar to those displayed in Southeast Asia: unreliable water infrastructure, high levels of displacement, and significant NGO presence. Early-stage market research suggests that Nigeria, Ethiopia, and the Democratic Republic of Congo as future pilot sites, based on both population density, and water stress levels, as well as UNICEF procurement spending.

As scale increases, AquaSafe will assess potential for social franchising models and micro-distribution networks, empowering local entrepreneurs as brand ambassadors and resellers. The CEO of an East African social enterprise shared, “If you want sustainable scale, decentralise ownership. Local micro-entrepreneurs will market your product more effectively than any ad campaign.”

Supplier and Logistics Overview



Factory Efficiency

| Injection Molding Workshop | Carbon Rod Production Workshop | Assembly Workshop | Packaging Workshop | Warehouse | Shipping |
|--|---|------------------------------------|-------------------------------------|---|--|
| 30+ Injection Molding Machines 20,000 PCS/Day | 11 Carbon Rod Production Lines 3 M/Min | 4 Assembly Lines 50,000 PCS/Day | 4 Packaging Lines 40,000 PCS/Day | 10,000m² Warehouse area Well-stocked inventory Wide range of ready-to-ship products | Just 40 km from Ningbo Port Daily throughput: 100,000 pcs Partnered with top logistics companies |



Your Competitive Advantage Starts Here

10 YEARS

INDUSTRY EXPERIENCE

With extensive custom development experience, expertise in the technical requirements and specific functions of various water filtration devices, and full...

[Read More](#)

50000 PCS

DAILY OUTPUT CAPACITY

Daily production capacity has increased from 20,000 to 50,000 units. We sell over 2 million high-quality filters worldwide each month, ensuring quick response an...

[Read More](#)

15 DAYS

DELIVERY CYCLE

With ample stock, flexible production capacity, and strict delivery control, we have strong order execution capabilities to meet bulk and urgent order demands.

[Read More](#)

FREE

BULK&PROTOTYPE SAMPLE

Experience the product quality and performance faster and better, without any cost, while thoroughly assessing its suitability and effectiveness.

[Read More](#)

1V1 & 24/7

SERVICE

We offer one-on-one professional after-sales support, with our team ready to respond quickly to your needs, tackling every challenge and pain point to...

[Read More](#)

UN SDG 6

SUSTAINABLE DEVELOPMENT

Aligned with the UN Sustainable Development Goal 6 – ensuring universal and equitable access to safe and affordable drinking water, in line with green and eco-...

[Read More](#)

Our manufacturing partner, PUREZA, is an established water filtration OEM based in Ningbo, China—a key hub for global water treatment production. With prior experience serving overseas clients and NGOs, PUREZA offers both the technical capabilities and regulatory compliance required for this project, meeting safety certifications such as NSF and CE (*OEM Water Filters for Offline Supermarket, NSF53 Certified Water Filter Manufacturer*, 2015).

In line with guidance from the First Assistant Secretary of the Financial System Division – Markets Group at the Commonwealth Treasury, we recognised that successful commercial agreements aren't about one side dominating the outcome. As noted, 'You land a deal when you give everyone a little of what they need.' That principle shaped our supplier discussions, leading to a fair agreement based on volume pricing and shared commitment to quality.

To keep our production costs low, we're planning to place a bulk order for 30,000 units. That scale allows us to bring the unit cost down to around 10 AUD by negotiating directly with the factory. They'll take care of the full production process, including assembly, quality checks, and packaging.

Once production is complete, the units will be shipped by sea to Cambodia. We've chosen Phnom Penh as our warehouse location because of its lower rental costs and easy access to rural provinces. Utilizing a third-party logistics provider will enable us to manage inventory more effectively and facilitate faster and more efficient local distribution.

Unit Manufacturing Cost Breakdown (Per Unit)

Unit Manufacturing Cost Breakdown Based on Our Supplier's Production

| Cost Item | Description | Estimated Amount (AUD) |
|----------------------|---|------------------------|
| Filter Cartridge | The core filtering component is used to remove impurities | 3.00 |
| Shell | External structure made of injection-molded plastic | 2.00 |
| Activated Carbon | Absorbs odor, heavy metals, etc. | 1.50 |
| Seals/Pipes | Leak-proof connection components | 0.50 |
| Other Materials | Glue, screws, simple instruction manual, etc. | 2.00 |
| Subtotal (Materials) | | 9.00 |

Additional costs are approximately 4 AUD, including:

| Cost Item | Description | Estimated Amount (AUD) |
|-----------------------|---|------------------------|
| Assembly Labor | Manual assembly and packaging | 1.20 |
| Lubrication/Testing | Basic functionality testing and lubrication | 0.80 |
| Quality Control | Basic quality control process | 1.00 |
| OEM Profit Margin | Reasonable factory profit | 1.00 |
| Subtotal (Additional) | | 4.00 |

Total unit price:13.00

Our company intends to purchase 30,000 units at once, so we are eligible for volume discounts and economies of scale from the OEM factory. This version of the cost estimate reflects the cost

reduction in product manufacturing, packaging, transportation, etc., with an average reduction of about 10–12% per unit.

Cost Breakdown (Bulk Purchase Edition)

| Cost Item | Original Price (AUD) | Estimated Savings (%) | Adjusted Unit Price (AUD) | Explanation |
|------------------|----------------------|-----------------------|---------------------------|--|
| Filter Cartridge | 3.00 | 20% | 2.40 | Bulk purchase allows price negotiation with suppliers |
| Shell | 2.00 | 25% | 1.50 | The injection mold cost is amortized over a large volume |
| Activated Carbon | 1.50 | 20% | 1.20 | Bulk sourcing of materials leads to supplier discounts |
| Seals/Pipes | 0.50 | 20% | 0.40 | Standard parts are cheaper in large volumes |

| | | | | |
|-----------------------|-------|-----------|-------|---|
| Other Materials | 2.00 | 10% | 1.80 | Packaging and manuals cost less per unit at scale |
| Subtotal (Materials) | 9.00 | | 7.30 | |
| Assembly Labor | 1.20 | 25% | 0.90 | Improved efficiency reduces labor costs |
| Lubrication/Testing | 0.80 | 10% | 0.72 | Partial automation lowers the cost per unit |
| Quality Control | 1.00 | 20% | 0.80 | The batch QC process saves on labor and materials |
| OEM Profit Margin | 1.00 | Unchanged | 1.00 | The factory retains a basic profit margin |
| Subtotal (Additional) | 4.00 | | 3.42 | |
| Total Cost | 13.00 | 23% | 10.72 | Negotiable to 10.00 AUD per unit |

Total product purchase cost = 300,000 AUD (10.00x30,000 units)

Total Procurement and Logistics Cost Estimate (30,000 Units)

| Cost Item | Unit or Basis | Total Amount (AUD) | Explanation |
|------------------------------------|--------------------------------|-----------------------|---|
| Product Procurement Cost | 10.00 AUD × 30,000 | 300,000 | Ex-factory price, excluding freight and tax |
| International Shipping (Sea) | 2,000 AUD / 40ft container × 4 | 8,000 | Each container holds approximately. 7,500 units, shipped from Ningbo to Sihanoukville |
| Duties and Import Tax | 5% × procurement total | 15,000 | Estimated Cambodian tariff on water treatment equipment |
| Destination Port Fees + Clearance | 1,000 AUD / container × 4 | 4,000 | Includes port transfer, customs broker fees. |
| Cambodia Warehouse Rent (3 months) | 1,200 AUD/month × 3 months | 3,600 | Phnom Penh 3PL warehouse, short-term lease under 100 sqm |
| Unloading & Warehouse Labor | 0.15 AUD/unit × 30,000 | 4,500 | Includes unloading, barcode scanning, and shelf placement |
| Inventory System Setup Fee | One-time 2,000 AUD | 2,000 | Third-party WMS system integration and setup |

| | | | |
|------------------------------------|--|---------|--|
| Subtotal (Logistics + Storage) | | 37,100 | Total logistics-related cost as listed above |
| Total Cost (Including Procurement) | | 337,100 | The sum of the product cost and logistics |

Landed Cost

$337,100 \text{ AUD} / 30000 \approx 11.24 \text{ AUD/unit}$

Budget Allocation (Initial Investment: AUD 1,000,000)

| Category | Allocation (AUD) | Percentage of Budget | Purpose |
|-----------------------------------|------------------|----------------------|--|
| Product Procurement + Logistics | 337,100 | 33.7% | Bulk purchase of 30,000 units and a 3-month logistics setup |
| Sales and Distribution Setup | 120,000 | 12% | Salaries, commissions, and training for a 12-month sales team |
| Marketing and Branding | 60,000 | 6% | Packaging localization, educational campaigns, and digital promotion |
| Warehouse and Operations (Year 1) | 50,000 | 5% | Storage, inventory systems, and order fulfillment after the initial 3 months |

| | | | |
|---|-----------|-------|--|
| Regulatory Compliance and Certification | 30,000 | 3% | Local testing, NGO qualification, and import registration |
| Expansion Market Feasibility Research | 20,000 | 2% | Research into new markets (e.g., Laos, Myanmar, Sri Lanka) |
| R&D and Product Improvement | 40,000 | 4% | Development of next-gen prototypes or add-on modules (e.g., UV filter) |
| Technology and Digital Platform | 45,000 | 4.5% | NGO client portals, ordering systems, and reporting tools |
| Contingency Reserve | 100,000 | 10% | Emergency funds (logistics disruptions, inflation, FX risk, etc.) |
| Working Capital (Year 1–2) | 197,900 | 19.8% | Staff salaries, utilities, legal and accounting services, and ongoing operations |
| Total | 1,000,000 | 100% | |

Our budget allocation reflects a deliberate balance between essential operational infrastructure and long-term business sustainability. Over 33% of our initial capital (AUD 337,100) was allocated to product procurement and logistics. This ensures timely manufacturing and delivery of 30,000 units, which is critical for achieving both sales targets and early user feedback(Ries, 2011). Without a functional product in the field, no subsequent commercial or social impact is possible.

The second-largest portion—19.8%—is allocated to working capital, covering staff salaries, legal fees, and recurring operational costs across the first two years. This aligns with industry best practice, which advises maintaining sufficient liquidity to avoid cash flow shortfalls during scale-up periods (*The Scale-up Conundrum: Evolving Startups from Founder-Led Growth to Industrialised Scalability* | United Kingdom, 2025). A further 10% has been set aside as a contingency reserve to absorb external risks like currency fluctuation and supply chain delays, reflecting EY Risk’s emphasis on planning for volatility and ensuring data accuracy in operational forecasting (Goodman, Soviero and Barrett, 2025BC).

Remaining funds are strategically distributed across sales, marketing, digital infrastructure, compliance, and market expansion. This cross-functional spread recognises that even in early-stage ventures, survival requires more than product—it requires coordinated execution across branding, tech systems, and regulatory readiness.

This structure allows our project to launch efficiently while keeping enough strategic reserves to adapt and grow. Every dollar is positioned not just for spending, but to reinforce long-term viability.

Income Statement (Year 1 — Unit Price: 45 AUD, Corporate Tax: 20%)

| Item | Amount (AUD) |
|--------------------------------------|--------------|
| Sales Revenue | 1,350,000.00 |
| Cost of Goods Sold (COGS) | 337,200.00 |
| Gross Profit | 1,012,800.00 |
| Operating Expenses (full allocation) | 562,900.00 |
| Operating Income | 449,900.00 |
| Tax (20%) | 89,980.00 |
| Net Income | 359,920.00 |

This profit and loss statement reflects our first-year financial projections, assuming all 30,000 units are sold at \$45 per unit, with total sales revenue of \$1,350,000.

Cost of Goods Sold (COGS), which includes direct expenses such as OEM production, international shipping, import duties, and warehousing, is calculated at \$11.24 per unit, or a total of \$337,200 for 30,000 units.

Our team calculated the gross profit at \$1,012,800 after subtracting COGS. This number was crucial because it gave us the first clear picture of how much room we had for investment and overhead, not just on paper, but in actual operational terms.

The operating expense figure of \$562,900 is based on our full budget allocation to business functions, such as:

| Expense Item | Amount (AUD) |
|---|--------------|
| Sales team setup and training | 120,000 |
| Marketing and branding campaigns | 60,000 |
| Warehouse operations and logistics system | 50,000 |
| Regulatory compliance and product certification | 30,000 |
| Expansion market research | 20,000 |
| Research and development for future products | 40,000 |
| Technology platform for order processing and NGO reporting | 45,000 |
| Working capital for salaries, utilities, legal & accounting | 197,900 |

After deducting these operating costs, operating income was \$449,900. Using Cambodia's 20% corporate income tax rate, we arrive at a tax expense of \$89,980.

This leaves a healthy net income of \$359,920, demonstrating that the project is financially viable even after full investment in setup, people, systems, and growth planning. As Professor Tasneem Husain from MQBS noted 'The bottom line is every business, whether for-profit or not, needs to survive to thrive. 'This perspective helped frame our financial decisions, particularly in building a structure that supports both resilience and reinvestment, rather than just short-term returns. Based on EY Risk's emphasis on the 'criticality of data accuracy,' we ensured that every

financial input—from unit cost estimates to tax assumptions—was grounded in verifiable sources and cross-checked within the team. This principle shaped our reporting structure and budget modelling process. In line with this, our use of itemised procurement costs, logistics breakdowns, and a structured income statement reflects a commitment to both transparency and precision.

Projected Balance Sheet (End of Year 1)

| Item | Amount (AUD) |
|---------------------|--------------|
| Assets | |
| Cash | 280,000 |
| Accounts Receivable | 50,000 |
| Inventory | 130,000 |
| Prepaid Expenses | 10,000 |
| Total Assets | 470,000 |
| Liabilities | |
| Accounts Payable | 20,000 |
| Tax Payable | 89,980 |
| Total Liabilities | 109,980 |
| Equity | |
| Initial Capital | 1,000,000 |
| Retained Earnings | 359,920 |
| Total Equity | 1,359,920 |

The balance sheet provides a snapshot of where the business stands financially at the close of its first year. We expect to hold around AUD 280,000 in cash, mostly from unused operational funds and part of the year's net income that wasn't reinvested straight away. There's also AUD 50,000 in receivables, which reflects customer payments still pending—mainly from larger buyers or NGOs with delayed payment cycles.

We've estimated AUD 130,000 in inventory, based on unsold units valued at cost. This includes stock kept in Phnom Penh to ensure product availability in rural zones. Prepaid expenses (AUD 10,000) mostly relate to upfront platform fees and warehouse arrangements already paid for the coming period.

On the liabilities side, AUD 20,000 accounts for invoices we've yet to settle, such as last-mile shipping or system integration. Tax payable is set at AUD 89,980, assuming a 20% corporate tax rate in Cambodia, applied to the year's taxable income.

What's reassuring is that our total equity (AUD 1,359,920)—driven by both initial investment and retained earnings—far outweighs our short-term liabilities. This reflects not just profitability, but a strong financial foundation for future growth.

Sustainable Operational Strategy

We plan to operate this project for at least five years, to build a business that is not only profitable, but also financially and socially sustainable. As we considered how to sustain the business beyond the first year, we were reminded of a point raised by Dr. Paul Crosby from MQBS: 'If it wasn't for scarcity, we wouldn't need economics at all. We wouldn't need to make a choice.' That principle shaped how we made long-term trade-offs—not everything could be funded, scaled, or solved at once. Our strategy reflects those economic realities: investing in systems and partnerships that give us flexibility, while postponing fewer essential features until growth allows.

Our upfront investment of AUD 1,000,000 is not only for production and shipping. A large portion of the budget is also spent on sales, warehouse setup, regulatory certifications, and even product development. This allows us to build a system that is not reliant on one-time transactions but instead creates room for recurring revenue and market expansion. At the same time, we keep

operations lean by using third-party warehouses and outsourcing some logistics, which keeps fixed costs low and cash flow flexible.

If the Cambodia pilot is successful, we will apply the same model in similar regions such as Laos or Myanmar. By doing this, we extend the life of the supply chain and further reduce unit costs. With strong unit profit margins and careful budget planning, we are confident that the project can be run sustainably after five years and may grow into a regional social enterprise in the future. I realized that financial planning alone is not enough—adaptability and integrity are equally important when working through uncertainty. As Nandini Krishna Kumar, Director of Education at MQBS, shared, Adaptability is a critical quality to develop, especially in today’s turbulent and fast-changing environment.’ This mindset helped me stay engaged and flexible throughout the planning process, ensuring our financial model remained realistic and resilient under change.

Chapter 6 - Financial Analysis

As a start up project engaging in international business with limited funding, it is essential to develop and employ strategic financial decisions that protect and optimise operations for Aquasafe. Our target return on investment is to achieve a terminal rate greater than 3% at the end of the first 5 years. My objective as the finance lead is to carefully consider findings from the Accounting and Business Analytics sections in order to provide analysis that communicates the company's performance, health and overall longevity. Using an array of selected financial ratios will explain the relationship between our finances. The results will be compared against similar projects competing in our industry to give us insight and actionable intelligence required for current and future strategic decisions. An internal Audit Analyst from Macq Bank, highlighted the crucial importance of being fact based rather than opinion based. As my role requires me to consider both quantitative and qualitative information, it is important for me to remain objective for both the project and my team mates.

The choice of strategy is an important first step for a company. To establish a competitive advantage, we have engaged in strategies focusing on cost leadership (Kotloff & Burd, 2012). Methods of cost leadership we have implemented are: Economies of Scale, Tight cost control system, Efficient production method, Simple product design and low cost distribution. A key decision that highlights this was establishing our warehouse in Cambodia. After considering Australia, followed by other SouthEast Asian Nations, we achieved comparatively low warehousing cost in combined with proximity to our target markets. Minimising and securing fixed costs such as storage further provides our project a higher buffer in the case of sales not reaching expected targets.

Part of our projects strategy was to intentionally design our model with high operating leverage . We have focused on ensuring our fixed costs, such as warehousing and manufacturing remain stable during the course of operations, Bhasin, K., & Nisa, S. (2019) . For the first year we intend to purchase 30,000 units at once. After considering smaller and continuous order of units from our supplier, we discovered the cost advantage of large orders. This decision was made to increase our economies of scale. As we anticipate units sales to grow, the marginal cost of each unit will decrease, whilst our profitability per unit increases. our volume

$$\text{Gross Profit Margin} = \frac{\text{Sales Price} - \text{COGS}}{\text{Sales Price}} = \frac{\$45 - \$11.24}{\$45} = .75$$

$$\text{Break Even Units} = \frac{\text{Fixed costs}}{\text{Price} - \text{COGS}}$$

$$\text{Break Even Units} = \frac{300,000}{\$45 - \$11.24} = 8,769 \text{ units}$$

To achieve a break even in sales requires a total of 8,769 units to be sold in the first year. Our capacity to sell 30,000 units, of which research provided by the Business Analysis section, will be in high demand.

As we anticipate to sell at least 30,00 units in the first year, our Gross profit is estimated to be:

At Year 1, we project sales of 30,000 units to generate:

$$\text{Revenue} = 30,000 \times \$45 = \$1,350,000 \text{ AUD}$$

$$\text{Gross Profit} = 30,000 \times (\$45 - \$11.24) = \$1,012,800 \text{ AUD}$$

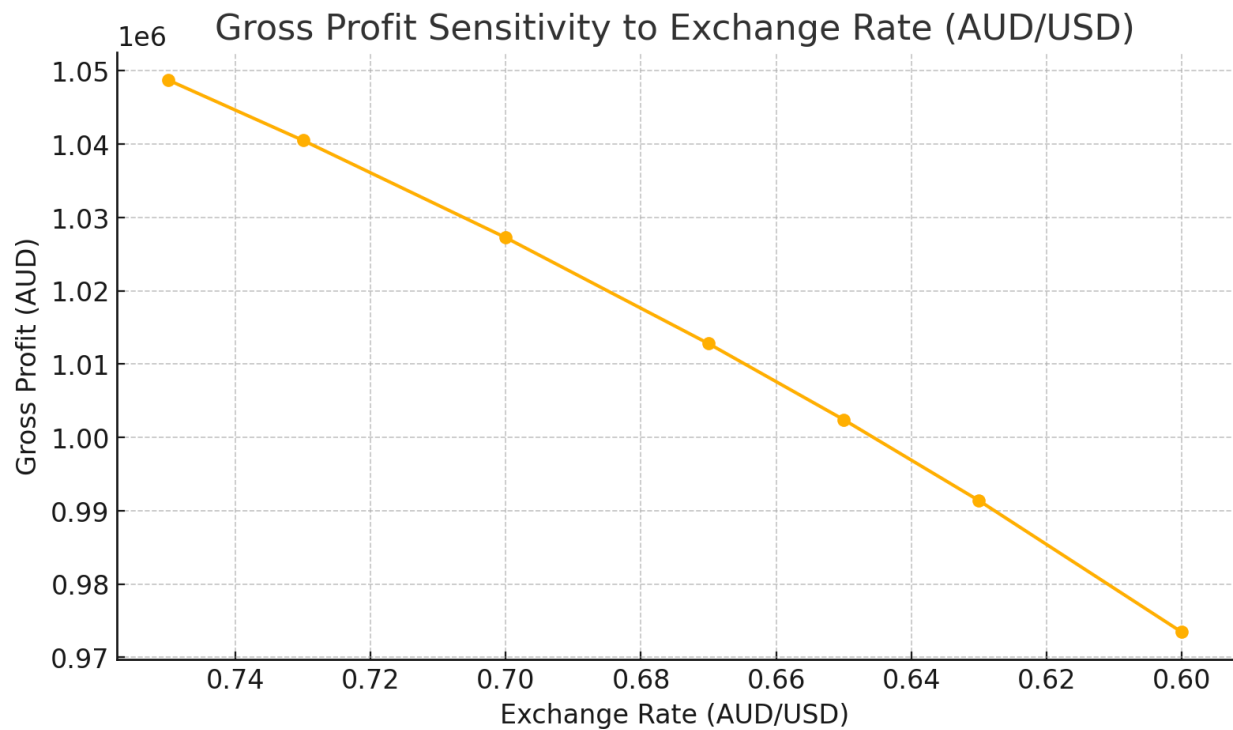
An important part of financial analysis is to assess the return generated by our initial seed of capital. This projection is a useful metric to consider during future stages of operations (2012, Lauren J. Kotloff) . Comparing it to real ROI in yr1, yr2....yr5 we are able to reevaluate how our original forecasts compare to our realised returns. If we underperform we can then assess and investigate which strategies or operations were ineffective.

$$\text{Return on Investment} = \frac{\text{Cum Net Profit}}{\text{Initial Capital}} * 100$$

$$ROI = \frac{\$1,120,000}{\$1,000,000} = 112\%$$

As our project is establishing a significant proportion of its operations in South East Asian markets, it is essential to integrate Foreign currency conversion methods into our planning. To engage with Cambodia and neighbouring nations, we have decided to trade in \$US rather than the local currencies, as it is widely accepted as a secondary currency in our regions market. The current global instability and depreciation of the AUD against USD increases the risk associated with foreign exchange. Fluctuations in exchange rates such as the AUD falling 100 basis points (1%) against the USD would increase our COGS from \$11.24 to \$11.425 per unit. This scenario would increase the total cost of 30,000 units from \$337,200 to \$342,468.

To avoid operating exposure, otherwise known as economic exposure, we will be entering into forward contracts locking in the current exchange rate of AUD \$1 to USD \$0.65. This insures us against future volatility in the market, reducing our exchange rate risk (Majka, M. 2024), given the \$AUD follows the \$USD we are susceptible to future crashes given the US recent foreign policies.



COGS relationship to an decrease in the AUD against the USD. As we will be operating continually in this region we are actively taking steps to avoid risk exposure and protect our initial cash flow from depreciation.

As we are ultimately aiming to address the UNSDG 6: Clean Water and Sanitation, I have assessed our projects capital efficiency, by calculated the impact per dollar. Although this is not part of a financial analysis, it is a powerful metric that communicates our projects goal to the world and future potential investors. As each pump provides access of clean water for up to 10 people, we are able to aggregate the amount people helped from our original \$1,000,000 investment. Assuming we sell 30,000 units * 10 = 300,000 people

$$\text{Capital Efficiency} = \frac{\$1,000,000 \text{ AUD}}{300,000 \text{ people}} = \$3.33 \text{ per person helped}$$

This ratio explains the humanitarian investment potential and will hopefully become a metric that attracts the attention of Angel investors and other private-public collaborations. Rarely are organisations focusing on providing social services solely judged on their financials, instead they are measured by their ability to successfully achieve their mission (Kotloff & Burd, 2012).

Although our project is restricted to an initial grant of \$1m AUD and Equity funding during the first 5 years of operations, we recognised the potential requirement and benefit of debt funding for our long term operation plan. In anticipation of financial success from our business model, we expect to be able to raise low cost capital from entities such as the world bank, without over dilution.

Chapter 7 - Conclusion (Whole Team)

The AquaSafe project brings together several disciplines to deliver a practical and impactful solution for improving access to clean water in Cambodia. Starting with business analytics, the project used data as the foundation for decision-making. Displacement trends, water scarcity indicators and community feedback were translated into practical insights that shaped product development, target regions and demand forecasting. This ensured the team made informed choices rather than relying on assumptions. Analytics played a central role not just in early

planning but also in ensuring the project remained flexible and responsive to real-world challenges. It enabled a data-led but human-focused approach, which proved crucial in understanding the communities AquaSafe aims to serve. By balancing technical analysis with social needs, the business analytics process ensured our strategies were not only evidence-based but also ethical and context-sensitive. It was this method that supported the long-term vision of reaching communities that traditional market systems often overlook.

The marketing strategy helped turn these insights into action. By analysing market needs and consumer behaviours, the team developed a culturally appropriate and financially viable plan that aligned with the goals of AquaSafe. The marketing approach focused on building trust in rural communities, ensuring affordability and working within local systems to distribute the product effectively. The result was a campaign that supported both commercial success and humanitarian goals. By adopting a pricing strategy that balanced cost recovery with accessibility, the marketing function helped ensure AquaSafe could generate a modest financial return while providing life-saving water solutions. The work also looked beyond Cambodia, considering scalability across Southeast Asia, which means AquaSafe is well-positioned to have an even broader impact. The success of the marketing plan shows how business knowledge, when used thoughtfully, can do more than sell a product, it can help change lives.

International business considerations were also essential in shaping AquaSafe's strategy. Understanding the socio-political environment and economic conditions in Cambodia ensured that the project was not only feasible but also sensitive to local dynamics. AquaSafe's approach supports more than just Sustainable Development Goal 6, it also touches on SDG 3 by reducing waterborne diseases, and SDG 13 by promoting energy-free technologies. This makes the project valuable not only from a business standpoint but also from a global responsibility perspective. Choosing the right entry strategy, learning from cultural nuances and engaging with local communities helped AquaSafe avoid the common pitfalls of international expansion. It created a respectful and informed path into new markets, allowing the company to grow sustainably. The international business perspective reinforced that AquaSafe is more than a product, it is part of a broader movement toward ethical, effective and responsible global development.

The accounting work provided a clear picture of AquaSafe's financial potential. With detailed forecasts, the team showed how the business could be both sustainable and profitable. Selling 30,000 units at a price of 45 AUD each, the project is expected to generate 1.35 million AUD in its first year, with around 359,920 AUD in net profit. These figures take into account important costs like tax, operations, warehousing and staffing. Importantly, the model does not rely on constant outside investment to grow. Instead, profits from the initial sales will help fund further development, which keeps the business self-sufficient. The use of lean logistics and third-party services ensures that AquaSafe remains agile and cost-effective. The accounting plan supports not only the goal of financial health, but also the mission to make a social difference through practical, grounded planning.

Finally, the financial analysis confirmed that AquaSafe is both a smart investment and a meaningful cause. The team built a strategy that manages risks, particularly those related to foreign currency, while also maximising potential returns. AquaSafe reaches its breakeven point quickly and maintains strong margins throughout the five-year plan. The project goes beyond simply meeting its required rate of return; it exceeds it significantly, proving that businesses can thrive even while operating in low-income markets. The financial strategy is conservative where necessary but forward-thinking where possible. It highlights how profit and purpose can work together, and how finance can support social impact when done with care. The financial model is not just a report, it is a blueprint for long-term success that benefits both investors and communities.

Bringing together analytics, marketing, international business, accounting, and finance, the AquaSafe project shows the power of teamwork across disciplines. Each area contributed unique skills and insights, but all were united by a shared goal: to deliver clean, safe water to those who need it most. The result is a business that is not only viable but meaningful, one that proves good ideas can lead to real change when they are backed by smart strategy and a commitment to doing good.

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