Team Aguavengers

Driving action in the Wayuu Community

WaterAid

Background

La Guajira

- Made up of mostly arid desert peninsula in Northern Colombia
- Home to the indigenous **Wayúu** people, the second largest indigenous group in the country, representing approximately **20%** of Colombia's total indigenous population. The majority of the Wayúu live in the rural area of mid and upper Guajira, in the municipalities of Uribia, Manaure, Maicao and Riohacha
- This marginalized community live dispersed in rural locations of about **50 to 350** inhabitants with extended family
- They have very limited access to services, where only **16%** has access to water and a mere **4%** to basic sanitation. This situation was worsened by a **5-year drought** (2010 – 15) resulting in, La Guajira, and specifically the **Wayúu** territory, declared to be in a state of **EMERGENCY**

Agenda


01
Education
02
Filtration
03
Storage
04
Revenue Stream
Looking for a long term Solution for the Wayuus
The full project is auto-Sustainable

Methodology

Each aspect of our solution was carefully selected taking into account the challenges and strengths of the Wayuu Community

Our solution went through rigorous Agua-testing against the following selection criteria:

- Cost
- Lifespan
- Efficiency
- Weight
- Locally Sourced
- Ease of use

01

Educational Plan

A focus on educating children to drive change in the community, and leveraging women to push for prosperity on water conservation

1) Enhance Existing WASH Policies

We aim to build upon the existing WASH educational program which already has high rates of penetration in the following areas:

A) Hand washing with soap
B) Managing water safely, from its source to its consumption
C) Hygienic use of sanitation facilities
D) Food hygiene

2) Aguavengers Educational Program

Implement filtration-system specific activity based games that cater to physical and cognitive learning preferences. Focus has been given to children aged 4-7:

A) Card Game for memory association
B) Sonically-Assisted Education (Songs)
C) Creativity & Competition (Drawing Challenge)

02

Filtration

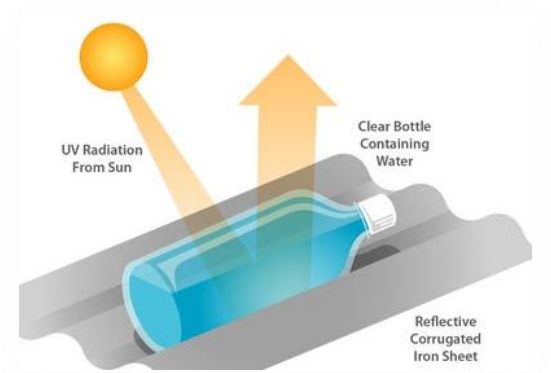
Adopting technology derived from kidney dialysis, the Ultra Membrane filtration by Sawyer delivers 0.1 and 0.2 micron filtration to ensure no bacteria passes

- Highest level of filtration available today
- If viruses are an issue, Sawyer offers the first portable purification device to physically remove viruses
- Portable design allows use by numerous families within the community
- Intuitive to use and easy to clean
- Filter can be placed in common areas within the community for ease of access (e.g. schools)
- Ability to withstand backwashing which allows the filter to be cleaned and reused
- Throughput of 1,000L per day with the ability to meet the need of multiple households
- We require 1,500 Sawyer filters to meet total demand of 900,000L per day

03

Water Storage, Disinfection & Sedimentation

Utilising prickly pear cactuses alongside Sawyer filters help us to ensure water is free from sedimentation. We use Solar Disinfection (SODIS) to ensure water is disinfected and can be properly stored



Prickly Pear Cactuses

- Simple & no/low cost utilising native flora
- Removes protozoa, bacteria and viruses
- Certain contaminants such as lead and barium can also be effectively removed

Solar Disinfection

- Simple & low cost (no cost if using recycled bottles)
- Proven reduction of viruses, bacteria and protozoa
- Proven reduction of diarrheal diseases
- Recontamination is low because water is served and stored in the small narrow necked bottles

04

Revenue Stream

Keeping existing community traditions alive whilst creating a revenue stream for our filtration and storage solutions based upon the existing production of woven Mochilas Wayuu Bags produced by the women of the community

- Keeps the Wayuu tradition alive with mothers teaching their daughters to weave and crochet
- Aligns with WaterAid's goals of placing women into key leadership positions in order to drive solutions
- These bags hold strong cultural importance with the tradition coming from "Wale´kerü", a spider that taught the women how to weave their creative drawings into the Wayuu bags. Each design incorporated into every Wayuu bag is unique to the weaver, telling a story
- One bag can complete up to a month to complete
- Partnering with WaterAid to facilitate sale of bags

Source: WaterAid// Jordi Ruiz Cirera

04

Revenue Stream

Key Partners

Wayuu mothers and daughters partnering with WaterAid staff to create a supply chain, selling Wayuu bags and assisting with cost and revenue management

Key Activities

Production of Wayuu Bags with different designs

Key Resources

Materials currently utilised by the community including Cotton & Acrylic tassels

Product

Main costs are Staff costs (Mothers and Daughters of the Wayuu Community) and Materials: Cotton & Acrylic tassels

Customer Relationships

Marketing strategy to demonstrate funds support Wayuu communities and Water treatment/storage

Channels

Incorporate growing tourism numbers and encourage visits to the community to view the products

Customer Segments

Product sales will target incoming tourists including tourist hubs Riohacha and Palomino. Tourism growth is forecast to steadily increase in future years

Cost Structure

Materials: Cotton & Acrylic tassels.
Total Cost: 3,75 USD (refer to report for assumptions)
Selling Costs/Other operating expenses (Labour, transport)
10% Of sales

Revenue Streams

Market Price of Wayuu Bags is up to 140USD
To encourage purchase from the Wayuu community we suggest pricing bags at 25USD (below market price) with profit to be split 50/50 between funding our water storage and filtration solution and 50% assigned to the producer

04

Revenue Stream

	1 Year												
Detail	**1 Month**	**2 Month**	**3 Month**	**4 Month**	**5 Month**	**6 Month**	**7 Month**	**8 Month**	**9 Month**	**10 Month**	**11 Month**	**12 Month**	**Full Year**
Sales	$ 5.775	$ 6.064	$ 6.367	$ 6.685	$ 7.020	$ 7.371	$ 7.739	$ 8.126	$ 8.532	$ 8.959	$ 9.407	$ 9.877	$ 91.921
Cost of Sales (Cotton)	$ 866	$ 910	$ 955	$ 1.003	$ 1.053	$ 1.106	$ 1.161	$ 1.219	$ 1.280	$ 1.344	$ 1.411	$ 1.482	$ 13.788
Gross Profit	$ 4.909	$ 5.154	$ 5.412	$ 5.682	$ 5.967	$ 6.265	$ 6.578	$ 6.907	$ 7.252	$ 7.615	$ 7.996	$ 8.396	$ 78.133
Other Op Expenses (10% Sales)	$ 578	$ 606	$ 637	$ 669	$ 702	$ 737	$ 774	$ 813	$ 853	$ 896	$ 941	$ 988	$ 9.192
Net Income	$ 4.331	$ 4.548	$ 4.775	$ 5.014	$ 5.265	$ 5.528	$ 5.804	$ 6.095	$ 6.399	$ 6.719	$ 7.055	$ 7.408	$ 68.941
Profit For Producer (50%)	$ 2.166	$ 2.274	$ 2.388	$ 2.507	$ 2.632	$ 2.764	$ 2.902	$ 3.047	$ 3.200	$ 3.360	$ 3.528	$ 3.704	**$ 34.471**
Profit per Bag	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	
Funds for Water Storage/Filtration	$ 2.166	$ 2.274	$ 2.388	$ 2.507	$ 2.632	$ 2.764	$ 2.902	$ 3.047	$ 3.200	$ 3.360	$ 3.528	$ 3.704	**$ 34.471**

Sales	**1 Month**	**2 Month**	**3 Month**	**4 Month**	**5 Month**	**6 Month**	**7 Month**	**8 Month**	**9 Month**	**10 Month**	**11 Month**	**12 Month**
Quantity (0,0025 % MKT Penetration) Base: 92.573	231	243	255	267	281	295	310	325	341	358	376	395
Price	25	25	25	25	25	25	25	25	25	25	25	25
Rate Growth	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%