

# **Changing the Way We Think About Fresh Water on Islands**

By: Emma de Brum

# Marshall Islands: Ebeye



- On Ebeye, 11,000+ people are crammed on this tiny piece of land which is 1 mile long by a quarter of a mile wide.
- Water shortages are common, and sometime fresh water is only turned for one hour the whole day.
- There is a desalination plant because there simply is not enough rain to provide water for the entire population.
- This helped me understand the importance of a desalination plant on Lana'i

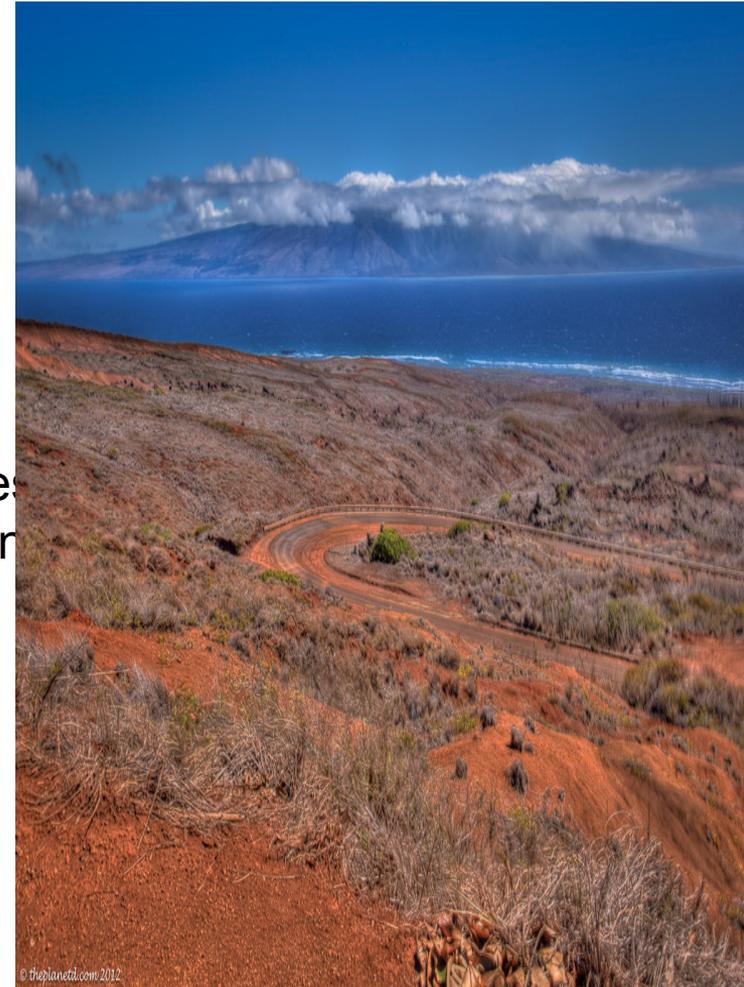
# Marshall Islands: Likiep



- While I was on Likiep water was more accessible.
- The 200 people of this island rely entirely on rain water. Water catchment tanks are found in everybody's yard, along with lens wells which can provide non-potable water for washing and laundry needs
- However, in time of drought the people here DO NOT have enough fresh water; those who can, have to leave their homes in order to survive
- Further research on the desalination process would help countries like the Marshall Islands.

# Lana'i

- In my lifetime on Lana'i, droughts have been bad.
- When droughts occur, especially the bad ones, deer move into the city and eat our vegetation.
- On Lana'i there once was a stream called Maunalei that now is dry.



# The Tragedy of Maunalei



- Maunalei Gulch used to be home to a thriving community.
- Maunalei is place on Lana'i where a stream used to run
- The stream dried up when the town started tapping into the groundwater.

# Desalination Around the World

- Desalination is the process at which salt is removed from water to produce fresh water suitable for human consumption or irrigation.
- Places such as the Marshall Islands, Italy, India, Greece, Japan, etc. have desalination plants.
- There has been an estimated 120 countries that have desalination plants within them.

# My hope for desalination on Lana'i

- I hope desalination on Lana'i will provide more fresh water to the residents of the island.
- I also hope that it will provide a lot of water for the hotels so that they will no longer use the island's water from our aquifer to water their grounds and golf courses
- Also desalination can provide for sustainable agriculture, allowing people to have more water to grow their own food, and maybe also sell their produce to make extra money.

# Where we are now . . .

- According to the Pulama Lana'i website, the desalination plant will be on the South side of the island where the Manele Bay Hotel and Hulopo'e Beach Park are located.
- They are hoping to increase the amounts of fresh water available to the islanders from four million gallons to ten million gallons.
- Their goal is to supplement Lana'i's fresh water reserves and protect its groundwater.
- If people learn more about desalination, they could help support Lana'i's efforts to be more self sustaining.

