## DISASTER SURVIVORS DON'T NEED BOTTLED WATER

June 29, 2016 by Juanita Rilling in Blog, Good Intentions


We all know people can survive for days without food, but not without water. This tenet of human biology often drives individuals and organizations to donate bottled water in the aftermath of disaster.

Unfortunately, the best of intentions can have terrible consequences. And when it comes to disaster relief, bottled water can quickly become a costly environmental catastrophe.

Let's start with cost: to send 100,000 bottles of water from Miami to the Dominican Republic by air costs $\$ 300,000$ in transportation alone. The water itself is $\$ 50,000$. After this $\$ 350,000$ worth of bottled water makes it to the Dominican Republic, it's only enough to hydrate 40,000 people for a single day.

That's right: 40,000 people for one single day. The 2010 earthquake in Haiti affected more than three million people.

High Cost of Shipping Water


100,000 liters of water is enough to hydrate 40,000 people for one day.

That's not the end of the story. After a disaster, infrastructure and basic services are on hold. Because local waterways are often the only way out of the city, environmental issues proliferate.

This shipment of bottled water arrived in Haiti:


Alternatively, investing in local water purification projects provides drinking water for the same number of people for just $\$ 300$. Donating cash to organizations coordinating water purification systems is 1,166 times less expensive than shipping water to a disaster zone, and generates no plastic trash.

It boils down to this: If you're thinking about helping survivors of disaster events, use your compassion for good. Find a reputable charity to support through InterAction or Charity Navigator. Help more people. Give responsibly. Donate cash.

Source: https://www.cidi.org/disaster-survivors-dont-need-bottled-water/\#.WcO6MYxSzDd

## Bottled water v. water purification systems for the emergency humanitarian aid setting

Please note that the following calculations are premised on the SPHERE defined requirements of 15 L of water per person per day.

| BOTTLED WATER | THIRST AID STATION |
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At $\$ 0.50 \mathrm{c}$ ( $£ 0.37 \mathrm{p}$ ) per litre of bottled water the cost for 21 pallets for each of a 48 day period (excl. logistics and transportation) would be $\$ 362,880(£ 266,977)$

For logistical and transport calculations 21 pallets of bottled water would weigh 15.12 tonnes (excl. pallets and packaging).
This rises to 725.76 tonnes for 48 days.

THIRST AID STATION
For 1,000 people 1 pallet of 720 TAS units would provide 48 days of water.


It costs $£ 0.055$ p (\$0.07c) per litre to produce safe drinking water with the TAS. For 1 pallet of TAS (excl. logistics and transportation) the cost would be $£ 39,600(\$ 53,820)$

For logistical and transport calculations 1 pallet of the TAS would weigh 216 kg (excl. pallet and packaging). This is the total weight for 48 days supply.

| BOTTLED WATER | THIRST AID STATION |
| :---: | :---: |
| For a family of 4 you would require a total of 990L <br> (equivalent to approx. 1.3 pallets) of water <br> to provide each person with <br> 15L per day for 16.5 days. | For a family of 4 a single TAS would provide 15L of <br> water for each person for about 16.5 days |

