

BENEFITS of CLEAN DRINKING WATER

Water is essential for life.

Clean water is essential for maintaining health.

Waterborne diseases such as cholera and typhoid seriously impact on health and can be fatal.

Clean water helps ensure good health and this in turn enables citizens to play a full part in family and community life.

Gold box contents (currently under review following feedback from Yemen)

- a. Essential items:
 - 1 Family filter
 - 1 Bucket
 - 1 Cooking pot
 - 2 Survival bags
 - 1 Tarpaulin
 - 5 Bowls
- b. Items related to hygiene (e.g soap, sanitary wear)
- c. Cooking and Eating items (e.g. mugs, spoons, cooking pot)
- d. Shelter/General living items (e.g. clothes line, folding shovel, hammer, nails, folding knife, wind-up torch, solar lamp, tape)

Additional J.O.Y. Items: For the shipment to Yemen, these include a range of medical supplies and school equipment.

JOY and Aquabox: “We have an established working relationship with one successful delivery of aid to Yemen in 2018. Due to the success of this initial delivery we aspire to repeat the process in 2019.”

Rotary Clubs & Aquabox: Aquabox was set up by the Rotary Club of Wirksworth, and becoming a registered charity in 1992 whilst still maintaining close links with the Rotary Club. The trustees of Aquabox are all from Derbyshire Rotary clubs. The Rotary Club of Dronfield has been appointed as an Ambassador Club for Aquabox.

Filter Operation: The filter is mechanical and requires no power source. It is operated by a hand pump which draws contaminated water through a coarse filter to remove debris and then through a series of microtubules. The microtubules walls are perforated by pores of diameter 0.02 microns which filter out pathogens e.g. those causing cholera, typhoid, polio and parasitic worm cysts. The water that emerges from the filter is potable. Filter maintenance is simple. Instructions in several languages are included with the filter. The clean water meets all WHO standards.

Family Filters: Over its lifetime, a Family Filter is capable of producing up to 500,000 litres of potable water. It can produce safe drinking water at a rate of 1 litre per minute, and it is more suited to meeting the needs of a small group such as a family of 5/6.

Community Filters: These work on the same micro-filtration technology. Community Filters are capable of producing up to 1,000,000 litres of safe drinking water at a rate of 6 litres per minute, and is used by medical centres, schools, villages etc. Community filters are designed for use in places such as at field hospitals, schools, community centres and can meet the water needs of 300 - 400 people.

Cost to Aquabox: 250 Gold Boxes @ £150 plus 10 Community Filters @ £250 adds up to a total of £40,000.

Award: Aquabox was awarded the Queen's Award for Voluntary Service in 2016.

Workforce: Aquabox is a volunteer led charity. At each shift, 12+ volunteers, (from a pool of over 70), pack Aquaboxes and assemble and test the water filters. Volunteers also arrange storage of supplies at the depot. Additional packing schedules are introduced as need dictates.

Activity in year 2018: A total of 1010 Gold Boxes, 95 Aqua12s (containing 1040 family filters) and 77 community filters were dispatched to the following countries: Puerto Rico, Haiti, Nepal, Uganda, Yemen, Somalia, Cameroon, India (Kerala), Philippines.

Video: A new short video will be available in March 2019, with a U-tube link on the main project page.

No plastic bottles: This calculation may be of interest. Assume a family filter is used for a total of 1 hour per day = 60 litres of water. Life time of filter potentially 6+ years. So, 60 litres per day for 6 years (60 x 365 x 6) there is a potential to prevent in excess of 130,000 plastic bottles entering the environment, and also a reduction in carbon footprint of transportation of bottles.

Future Shipments: We hope, if funding allows, that this shipment to Yemen will be followed by further aid packages.

Filter Assembly in the Aquabox Workshop:



Building the Filter Pumps in the Aquabox workshop

Photo Gallery: Aquabox projects before Yemen



Aquaboxes waiting for transport to Yemen



Aquaboxes being sent to Bangladesh



Aquaboxes being distributed in Bangladesh to Rohingya refugees



Fingerprinting Rohingya refugees to ensure correct distribution of Aquaboxes



Teachers in Anganwadis (schools for underprivileged children) in Kerala receiving tuition on family filters



Family filter being used alongside well in The Gambia



Community filter in use in Haiti



Aquabox target 2019 -- A Yemen family



Yemen Children – Courtesy of IRC and Kelly Ryan