

## Engineers Without Borders Australia Deploys CBT EC+TC Kit in Timor-Leste to Improve Potable Water Quality



**engineers  
without borders  
australia**

Engineers Without Borders Australia (EWB) is a non-profit organization based in Melbourne and has three on-the-ground teams in Timor-Leste, Cambodia and Vanuatu. In Timor-Leste, EWB work across a specific range of thematic programs, including Water, Sanitation & Hygiene (WASH), Technology Development and Women in Engineering. [www.ewb.org.au](http://www.ewb.org.au)

### Problem

Most of the population of Timor-Leste, particularly in rural communities, is still struggling with accessing clean water supply systems. A lack of water quantity at rural communities causes individuals within households and schools to consume contaminated water from multiple sources. One recent report found 92% of rural communities surveyed had contamination at some point in their water supply system and only 34% had 9-12 months of adequate spring water supply.

To ensure clean water at the point of consumption regardless of source, EWB Australia has been cooperating with its partners Abundant Water and Australian National University by delivering a ceramic water filter project in rural communities, schools and households across Timor-Leste. However, to prove the use and effectiveness of the ceramic filters, EWB requires routine water quality testing before and after installation of ceramic filters.

The challenge was EWB had to be able to easily test microbial water quality in rural areas without laboratories, complicated equipment and other resources.

### Solution

EWB Australia uses the Aquagenx [CBT EC+TC MPN Kit](#) to identify *E. coli* contamination in raw water sources and to assess water quality of filtrated water in rural communities, particularly at the household and school level. Test result data obtained from the CBT EC+TC MPN Kit allows EWB to provide feedback to its partners regardless of filter effectiveness and provide advice to rural communities on the most practical way to treat their water at the point of consumption.

### Test Results

The first phase of water quality testing with CBT EC+TC Kit began in May 2022 at schools. Test results from this first phase revealed multiple raw water sources were unsafe to drink and use for cooking. Simultaneous testing on filtrated water validated the filtration system does eliminate *E. coli* contamination.

## Conclusion

Elsa Ximenes, program support officer at EWB, says “Our team had no prior training on how to use these kinds of water quality test kits. We found the Aquagenx CBT EC+TC Kit is a much more flexible tool for small projects to large scale water quality testing surveys in rural areas. The CBT EC+TC Kit is very reliable for water quality testing. Color change test results are easy to identify and score. Aquagenx water quality tests enable EWB to prove the efficacy of ceramic filters installed in schools and households in rural Timor-Leste communities.”

