

## **CLEAN WATER FOR AN ENTIRE COUNTRY**

With the help of Sawyer filters, Fiji will become one of the first nations with a border to border clean water solution.

Sawyer filters will bring clean water to the nearly 50% of the population that does not have access to a treated water supply. Many of these communities rely on contaminated wells or rivers for their water supply.

GIS (geographic information system) software is currently tracking the implementation of 100,000 Sawyer filters and the results for the following will be submitted for publication in journals and be featured in clean water conferences around the world:

- Diarrhea reduction
- Work and school days recaptured associated with waterborne sickness
- Purchased water savings and medical savings associated with waterborne sickness



GIS Map of current filter distribution points in Fiji



## **GIS:THE POWER OF DATA**

Sawyer's Hollow Fiber Membrane filters are the perfect solution for Fiji's clean water needs, especially in the rural hard to reach areas. The filter simply attaches to a 20-liter bucket which are plentiful in Fiji. The filter removes 99.9999% of bacteria and 99.9999% protozoa from any fresh water source, providing enough water for a family's daily drinking, cleaning and cooking.

There are currently 100,000 Sawyer filters donated to the Fiji project that are in process of distribution to the villages. Since 2008, Give Clean Water has worked in partnership with the Fiji Ministry of Health developing best practices for the sustainable use of the Sawyer filters in Fiji. GIS data collection is part of that process to quantify the effectiveness of the filters.

Not only does GIS technology allow for the tracking of the filter installations and follow ups, but robust health and socio-economic data is also collected. Each family that receives a water filter voluntarily participates in a survey that measures diarrhea reduction, school and work days recaptured that were once lost due to waterborne sickness, purchased water savings, and medical savings associated with waterborne sickness. The survey was carefully crafted and is being analyzed by an independent United States based university.

As the results come in, the data is impressive. In addition to significant diarrhea reduction, Fiji families have experienced an average of \$22.46 USD per month savings on medical costs, \$10.50 per month savings on purchased water, and had an increase of 1.13 days of adult work days added to their monthly budgets.

As important as the clean water intervention is, behavior change is a key to sustainability. That is why partner NGO's are committed to the follow up and continuing education process. At 2 weeks and 8 weeks, the intervention teams revisit every village and observe each family demonstrate the use of the water filters. The families also demonstrate maintenance cleaning of the filters, and are coached by the intervention teams. Data is collected on proper use of the filters, and the health and socio-economic surveys are again administered providing before and after data that is analyzed by a university. Those results will be published twice a year until the completion of the project in December of 2023.



