

# Putting the metrics behind sustainability at ecofiltro.



## ecofiltro Water Filter



### Delivering Water with Minimal Environmental Footprint

#### The Challenge

Guatemala-based start-up ecofiltro developed a simple water filter that provides clean drinking water. For placing first at the Sustainable Brands Innovation Open (SBIO) competition, held at the Sustainable Brands '12 Conference (San Diego, CA) in June 2012, ecofiltro was offered the services of PRé North America to conduct a life cycle assessment (LCA) of its product, as well as a comparison to two alternative methods of water purification.



#### The Products

Three water purification systems were analyzed and compared, based on the water consumption of a typical Guatemalan family in one year (2,920 liters of potable water). The systems studied include delivery of water via:

- An ecofiltro water filter
- Bottled water
- Boiled water

The scope of the study is "cradle to delivery," which includes raw material extraction through delivery to the consumer. The analysis for all three methods includes raw material extraction, manufacturing, and distribution to the consumer.



All of ecofiltro's materials are locally sourced



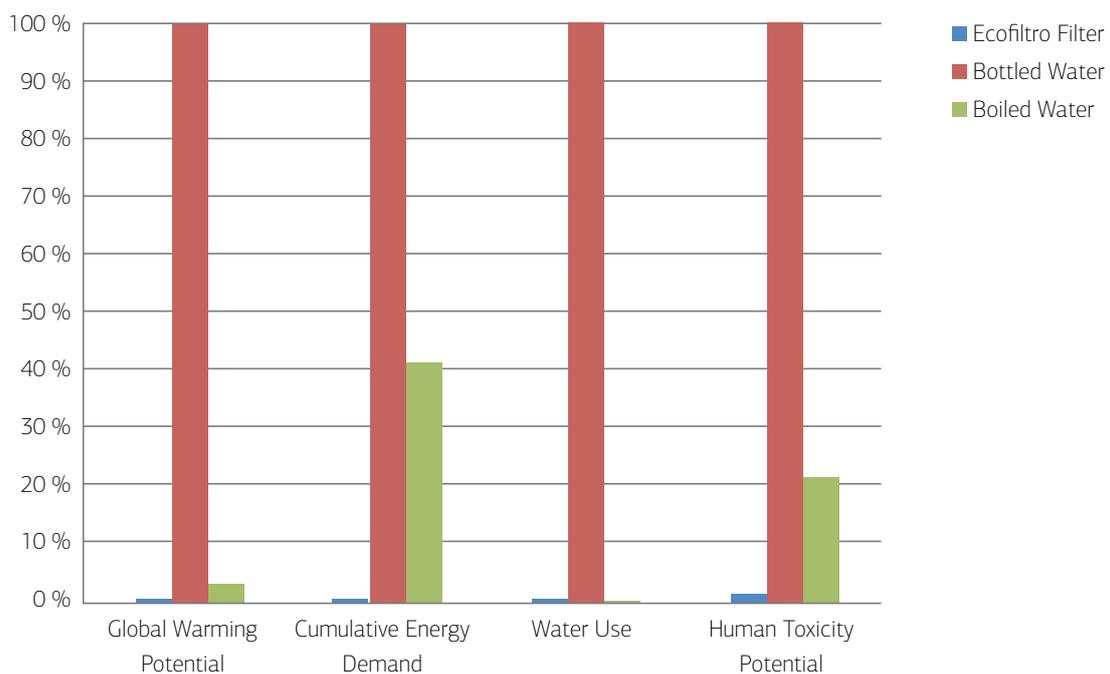
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## Results

Compared to bottled water and boiling, ecofiltro water filter has several characteristics that positively impact its environmental footprint:

- ecofiltro water filter is made from low impact raw materials (clay, sawdust, water, and a small amount of silver), all sourced from Guatemala.
- ecofiltro's production process requires little energy.
- One ecofiltro water filter is guaranteed to supply an average-sized Guatemalan family with potable water for two years — and many last for three or four years.
- The plastic bucket that holds the ecofiltro water filter can be reused for several years.

Impact Category	ecofiltro Filter	Bottled Water	Boiled Water
Global Warming Potential (kg CO2 eq)	5.26	561	15.2
Cumulative Energy Demand (MJ)	125	14,500	5,920
Water Use (m3)	3.84	1,970	10.4
Human Toxicity Potential (CTUh)	1.58E-09	1.18E-07	2.59E-08



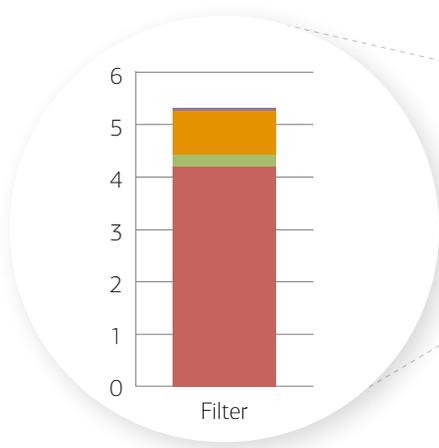
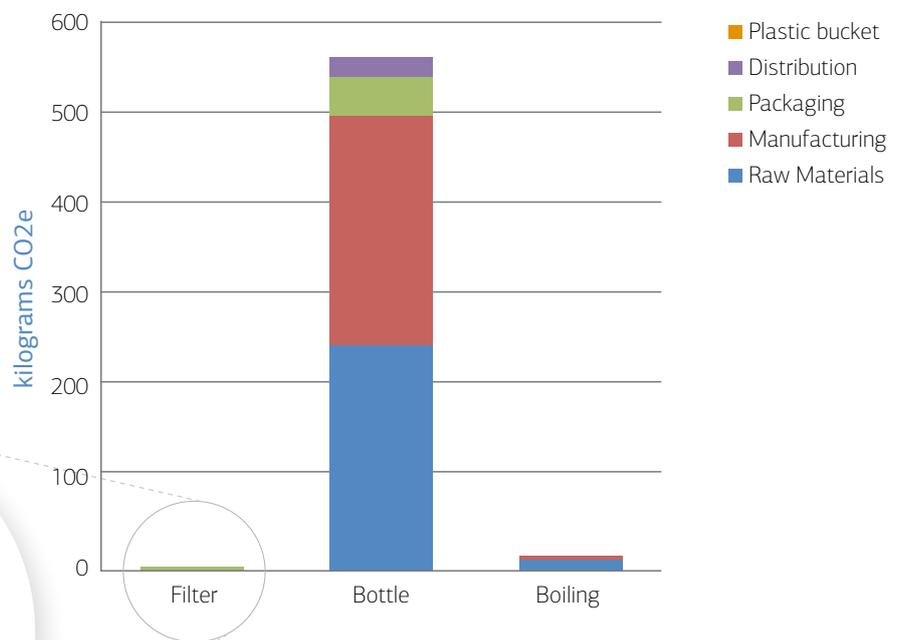
ecofiltro's climate change impacts are less than 1% of the impacts from consuming the same amount of bottled water, and 35% of the impacts of boiled water.



The environmental impacts assessed in this study are global warming, energy, water, and human toxicity. When compared to bottled water and boiled water, the ecofiltro water filter has drastically lower emissions in all impact categories analyzed.

For the filter, the plastic bucket and manufacturing process are the main contributors to global warming potential, though these impacts are very small overall.

### Global Warming Impacts





## Creating Business Value Through Sustainability Metrics

### Sustainability Metrics Consulting

Sustainability in business has become a core business concern and a driving factor in creating business value. PRé offers a range of consulting services, provided by a team of experts who will work with you to choose, create and deliver the right metrics for your sustainability goals.

### **PIONEERING** Developing Innovative New Metrics For New Challenges

Societal and stakeholder expectations for implementing sustainability in business are becoming more demanding. Sometimes, off-the-shelf metrics cannot help you answer their questions. PRé has extensive experience in life-cycle-based metrics pioneering: implementing cutting-edge new product metrics and developing completely new, scientifically sound and robust metrics. PRé has been the driving force behind many ground-breaking initiatives like ReCiPe or the Handbook for Product Social Impact Assessment.

### **INTEGRATION** Integrating Sustainability Metrics In Your Business

To create business value from sustainability, your business needs to integrate sustainability metrics across its business functions. You can't improve what you can't measure. PRé has the expertise required to help you choose the right metrics and to integrate sustainability into your day-to-day operations. PRé also supports you in increasing the efficiency of your LCA work and in empowering your LCA practitioners.

### **DELIVERY** Expert LCA Knowledge To Measure Sustainability Performance

LCA has proven to be a robust and science-based way to measure and communicate your sustainability performance. PRé can review your LCA studies, deliver EPDs, footprints and other metrics, and provide you with completely new LCA studies to measure your impact. Our consultants are renowned for their expertise in specific topics, such as impact assessment, uncertainty, normalisation, toxicity, social sustainability and databases. PRé offers training courses and in-house training that build a solid knowledge base to help you conduct LCA studies yourself.

**Get In Touch With PRé**  
We're always happy to discuss your sustainability challenges with you. If you have any questions, feel free to contact our offices in the Netherlands and the US.

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*We look forward to being your partner in putting the metrics behind sustainability.*

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### Those Who Have Gone Before – Market-leading Businesses That Are Creating Value From Sustainability Metrics

PRé has built a worldwide reputation as a leader on environmental and social impact assessment. We work with organisations and institutes such as the European Commission, European Space Agency, Heineken, BASF, Philips, L'Oréal and DSM.



### About PRé

PRé has been a leading voice in sustainability metrics and life cycle thinking, since 1990, pioneering the field of product and supply chain sustainability metrics. We've developed some of the world's most widely recognised and applied environmental impact assessment methods, as well as the world's leading LCA software, SimaPro. From the very first, we have not only focused on developing the science of LCA, but also its application – helping companies create value by using state-of-the-art measuring, monitoring and analysis methodologies to improve their sustainability performance.

Find out more about what we can do for your organisation at [www.pre-sustainability.com](http://www.pre-sustainability.com)

