

## efficiency

**PAUL<sup>®</sup>** filters more than 99.99% of bacteria and other pathogens using a membrane filter with a pore size of approx. 40 nm (0.04 µm) and 10 years lifetime. **During many months, 1,200 Liter water per day** are filtered – enough for 400 victims to survive.

What's more reasonable:

- ✓ transport 1.2 tons of water **every day** to help just 400 victims
- ✓ or transport one **PAUL<sup>®</sup>**, 20 kg **just once**?

or: transport **60 PAUL<sup>®</sup>** (1.2 tons) instead of water just on one day enables **24,000 victims** to filter their water by themselves!

human lives must be saved!

## contact

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With your donation, you support the manufacturing of WaterBackpacks for emergencies and disasters relief.

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*Water supply in Cases of Disasters*

**The WaterBackpack PAUL<sup>®</sup>**



gefördert durch



Deutsche Bundesstiftung Umwelt

[www.dbu.de](http://www.dbu.de)

Deutschland  
Land der Ideen



Ausgewählter Ort 2011

*Winner „Society“*

**U N I K A S S E L  
V E R S I T Ä T**

## motivation

After disasters like earthquakes, flooding etc., one of the most urgent problems is to **provide the affected population with potable water**. Wells and rivers are contaminated by bacteria and other pathogens. People suffer from diarrhea, cholera and other diseases, and many, especially children, die.

## problem

Mobile, highly engineered waterworks are deployed, which need skilled operation personnel, energy and consumables. They serve several ten thousand capita and, due to this, cost and availability, are used only in cities.

With infrastructure destroyed, victims **in remote areas** are **cut off** this water source. Thus:

**Additional help is needed.**

## solution: PAUL<sup>®</sup> (Portable Aqua Unit for Lifesaving)

For decentralized water supply in cases of disasters, the DESEE developed **PAUL<sup>®</sup>**, the **WaterBackpack**.

Characteristic and outstanding properties of **PAUL<sup>®</sup>** are:

- ✓ no energy, no chemicals, no consumables, no operation personnel needed
- ✓ no maintenance over months
- ✓ no moving parts, extremely robust
- ✓ carry on the back hands free
- ✓ 4 pictograms allow self help even for illiterates
- ✓ suitable for a long-term operation for several years

