IDENTIFYING BEST PRACTICES AND INNOVATION IN WASH

- Ensuring access to water and sanitation for crisis affected populations
- Examining the quality requirements and guidelines for drinking water
- Improving hygiene and education
- Supporting best WASH practices in remote areas and conflict zones

By Dick van Dijk

ENVIRO-PURE FOUNDATION FOR ENVIRO-WATER CONSORTIUM
Many People in Rural Areas Don’t have Potable Water Available

- **Surface Water from Rivers, Lakes, Ponds** contains Bacteria without Exception
- **Many Groundwater Sources** also contain Micro-Organisms, of which some are Harmful Bacteria, Viruses, Cysts, Protozoa
- After Floods or other Natural Disasters many Wells are Contaminated
- **Appropriate Technology** can be Applied
Millions of Deaths each Year

- Every 8 Seconds a Child Dies from Drinking Contaminated Water!
- In many Countries 80% of People Living on Farms Suffer from Intestinal Worms and 30-60% from Chronic Diarrhea
- WHO states: *Emphasis must be on PREVENTION and NOT ON CURE*
SAFE WATER AND SANITATION MADE ACCESSIBLE TO ALL

- DRINKING WATER TREATMENT plus WASTE WATER PROCESSING
- FOR RURAL-, DISASTER- and CONFLICT-STRUCK AREAS
- BASED ON 40+ YEARS OF EXPERIENCE

Enviro-Water Consortium
Enviro-Water Consortium

A NEWLY CREATED DUTCH-AUSTRALIAN WATER PARTNERSHIP OFFERS COMPLETE WASH FACILITY SOLUTIONS FOR:

• Rural Villages, Schools, Dormitories and Training Centres, Longhouses, Community Centres, Clinics, Security Force Compounds, Hotels and Resorts

• DISASTER VICTIM- AND REFUGEE-CAMPS & SETTLEMENTS
Enviro-Pure Foundation - Netherlands
-UF & RO Water Purification from Almost Any Source, Fresh Or Brackish, Solar-, Wind-, MicroHydro-, Grid-Powered

Greenco Water - Australia:
-Raw & Treated Water in Tanks that Come as Flat Pak, 14,000 Litres on a Single Pallet

Envorinex - Australia
-Toilet Housings, Black & Grey-Water Treatment in Lego-type blocks of recycled plastic, Easy to Transport & Assemble
Enviro-Water Consortium

- smartUF
- self-priming pump
- motor generator
- Envorinex BIPU-flat packs
- Envorinex BIPU sewage treatment chambers
- Greenco Water PFT
- Greenco Water 1,000 lt tanks
Enviro-Water Consortium
A DUTCH-AUSTRALIAN WATER PARTNERSHIP OFFERING COMPLETE WASH SOLUTIONS
for rural villages, schools and training centres, dormitories, clinics, community centres, security force compounds, longhouses, water kiosks, hotels and resorts, and disaster victim and refugee camps and settlements

COLLECTION FROM SOURCE → UNTREATED WATER STORAGE → FILTRATION AND PURIFICATION → TREATED WATER STORAGE → MAJOR USE AREAS → WASTE WATER DISPOSAL

- gravity feed
- rainwater harvesting
- pumping from surface and ground water, using Enviro-Pure supplied pumps

GREENCO WATERSHED

GREENCO HEADER TANK

GREENCO TANKS

smartUF

GREENCO TANKS

filtered water

potable water

food preparation and dining areas
water kiosks and drinking stations
surgeries and teaching areas
wet areas
- bathrooms
- laundries
- prayer rooms

toilets

ENVOIRO-PURE  GREENCO WATER  ENVIRO-PURE  GREENCO WATER  ENVORINEX
Ultrafiltration How does it work?

- Bacteria are Typically Larger than 0.5 μm (microns)
- Viruses are Larger than 0.05 μm
- Pores of UF membranes are between 0.01-0.03 μm
- No Living or Dead Micro-organisms will be able to Pass this “Sieve”, nor will small Particles such as Colloids
Ultrafilters (UF) typically consist of many hollow fibers with a diameter of 1-2 mm. The walls of these fibers act as fine filters with a pore diameter of 10-25 nm and a total surface from 1 to 80 m². The flow of raw water should be from inside-out, allowing backwashing from outside-in thereby removing all trapped particles from the pores, including bacteria and viruses and eliminating dead pockets with accumulated dirt.
GREENCO WATER
PAK FLAT TANK

- 1,000 Liter tanks come in flat-packs for easy warehousing and bulk transport
- deliverable to any location on horse-, donkey-, camel-, elephant back, canoe or porter
- easily assembled on-site within 10 minutes without tools
- tanks can be connected to provide large storage capacity
ENVIRONEX MINI WASTE WATER TREATMENT SYSTEMS MADE OF RECYCLED PLASTICS: CLICK-ON LEGO-TYPE ELEMENTS FORM A COMPLETE SYSTEM TO PROVIDE TOILETS & SHOWERS WITH GREY & BLACK WASTE WATER TREATMENT WITHOUT CONCRETE: LIGHT, QUICK, EASY, FOR REMOTE AREAS AND REFUGEE- & DISASTER SURVIVOR CAMPS, CLINICS, ARMY ETC.

Delivery of Treatment System for Hospital in PNG

Toilet Buildings Fiji

UN East Timur
THANK YOU

Enviro-Water Consortium