



# DROP THE ACT

IN ERITREA




[CO2logic.com](https://CO2logic.com)



## ERITREA WATER PROJECT

with the support of



**18 WELLS**  
  
BUILD OR  
RESTORED

 **884**  
HECTARES  
FOREST   
PRESERVED

**14 000**  
PEOPLE   
POSITIVELY  
IMPACTED

**38 M**  
LITERS   
CLEAN WATER

**445 000**  
SAVED TREES  


**30 000**  
TONNES OF CO<sub>2</sub>  
**AVOIDED**



## IN A FEW WORDS

### IMPROVING LIVES.

Since annexed from Ethiopia (1962), Eritrea has experienced periodic conflicts with serious consequences on all areas of life. Over 45 % of the rural population does not have access to safe water and relies exclusively on unprotected wells, lakes and other open water sources that are highly susceptible to contamination. The only option to purify water is by boiling it, using firewood.

This process results in deforestation and the release of greenhouse gas emissions from the combustion of wood. By providing safe water, this Project ensures that households consume less firewood to purify water. Therefore, it reduces greenhouse gas emissions.



# IN ERITREA

## PEOPLE LACK ACCESS TO CLEAN WATER

### ■ ISSUE N°1

Armed conflicts, coupled with mandatory military service, take men away from their villages which means that many rural families are headed by women, often widows. Households headed by women in Eritrea face several disadvantages and, as a result, they cultivate less land and have fewer assets which makes it very hard to get out of poverty.

### ■ ISSUE N°2

Almost all energy consumption for cooking and heating relies on the use of wood and charcoal, which results in high levels of deforestation. Among other ecological services, forests provide protection against erosion, landslides and floods, fixate carbon out of the atmosphere and maintain soil fertility. On top of that, is it important for the biodiversity and national economy.

### ERITREA

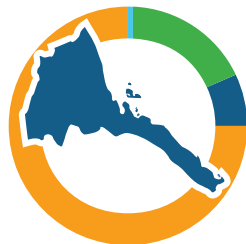
117 600 km<sup>2</sup>

75% Agriculture

0.14 % Water

15% Forests

10% Other



To tackle these issues, CO2logic works with local Project developers to install and maintain boreholes in order to provide safe and clean water to the Eritrean communities. Boreholes are being implemented in Zoba Maekel, a rural district where many people still use inefficient three stone open fires.







## REHABILITATION OF WELLS

The main objective of the Project consists of repairing damaged wells as well as drilling new ones. These wells provide clean water that can be accessed through a borehole. To make sure it is safe for consumption, the water is regularly tested beforehand.



## TRAINING & MANAGEMENT

The local Project developer works with local NGO's and mechanics that are responsible for the rehabilitation and maintenance of the boreholes. A permanent Project officer is located at the Project sites to oversee and coordinate the work completed. He also coordinates water, sanitation and hygiene committees.



## IMPROVING LIVELIHOODS

Besides the climate benefits, the Project also has an important impact on health and livelihood. Women, who are taking care of the majority of the household tasks, are the ones who benefit the most from the positive impacts of the Project.



## ENVIRONMENTAL IMPACT

Eliminating the use of firewood to purify water, drops global CO<sub>2</sub> emissions but the impact is also significant on a more local scale. The Project protects trees and saves valuable forests in Eritrea, which provide important ecosystem services and improve agriculture.

## REHABILITATION OF WELLS

THE PROJECT CONSISTS IN REPAIRING DAMAGED WELLS AND MAINTAINING THEM IN THE LONG RUN

Wells are often unavailable, disfunctioning or vandalized. This Project ensures that wells are working, that the water is safe and that the mechanisms put in place remain in the long term.

Eritrea recognizes the importance of adequate water procurement and sanitation services as motors of social and environmental policy, as well as economic development, poverty reduction, innovation and public health. On a yearly basis, 18 rehabilitated wells provided about 38 million liters of clean water.

With access to clean water, the health conditions of many Eritreans greatly improve. There is a reduction of the diseases due to the usage of contaminated water, such as cholera, diarrhea, typhoid or hepatitis. Respiratory diseases due to the smoke of burnt wood (especially indoors) also decrease significantly thanks to the installation of the wells.

**6** CLEAN WATER  
AND SANITATION







## **TRAINING AND MANAGEMENT**

### WATER, SANITATION AND HYGIENE MANAGEMENT COMMITTEES

**The WASH trainings involve the local community to increase awareness.**

Reunions are held in villages during which Q&A sessions, role games and explanations are given concerning the following themes:

- Disease transmission risks;
- Positive effects of hand washing;
- The usage of pit toilets;
- What are the clean and dirty water sources, and how to keep water clean;
- Keep the food and utensils clean;
- Good health and clean environment go together.

**Managers are trained locally for maintenance and protection of the wells.**

They make sure surroundings of the well stay clean and protected against animals or vandalism.

**Testing water regularly.**

To assess if it's safe for human consumption, water is tested often and hold to the highest safety standards.

**3** GOOD HEALTH  
AND WELL-BEING





## IMPROVING LIVELIHOOD

### IMPROVING LIVING CONDITIONS ALSO COMES WITH GENDER EQUITY

The daily lives of the local people are positively impacted in terms of health, but also in other aspects.

In Eritrea as in many countries in Sub-Saharan Africa, the burden of collecting crucial household resources like firewood and water, falls disproportionately on women. Where water access is difficult due to the lack of a functioning borehole, the burden of water collection can become particularly intense, often taking up to 6 hours per day which leaves very little time for resting, education and income generating activities.

It has been observed for several years that our Borehole Projects have very positive impacts on gender equality in target communities.

5 GENDER  
EQUALITY







## ENVIRONMENTAL IMPACT

ENVIRONMENTAL BENEFITS COME ON  
A GLOBAL AND A LOCAL SCALE

By lowering the necessity of wood as fuel, and by conserving 884 hectares of forest, CO2logic and its partners avoid a total of 30 000 tonnes of CO<sub>2</sub>. This is the amount of tonnes that would otherwise be emitted, if the local population had no access to clean water.

In addition to the reduction of CO<sub>2</sub> emissions, this Project saves 445 000 trees. The forests in Eritrea are important for carbon fixation but also for ecosystem services. They play an important role in agriculture, provide protection against soil erosion, landslides and floods and ensure soil fertility by limiting water run-off.

**13** CLIMATE ACTION



**15** LIFE ON LAND



# IMPACTS OF THE PROJECTS



The Gold Standard certification body checks the impact of the Project throughout its lifespan, both in terms of greenhouse gas emissions reduction and several other co-benefits. In order to do so, a lot of data has to be collected on the spot, such as the quantity of wood used to boil water if the Project didn't exist, the number of women positively impacted by the Project, etc. This data is collected by independent researchers, according to specific criteria defined by the Gold Standard.

**Each level of the Project allows important CO<sub>2</sub> reductions & creates many co-benefits for the local population, in line with the United Nations Sustainable Development Goals.**



|                                      |  |  |  |  |  |
|--------------------------------------|--|--|--|--|--|
| 1<br>NO POVERTY<br>                  | 2<br>ZERO HUNGER<br>                     | 3<br>GOOD HEALTH AND WELL-BEING<br>              | 4<br>QUALITY EDUCATION<br>                       | 5<br>GENDER EQUALITY<br>                     | 6<br>CLEAN WATER AND SANITATION<br>              |
| 7<br>AFFORDABLE AND CLEAN ENERGY<br> | 8<br>DECENT WORK AND ECONOMIC GROWTH<br> | 9<br>INDUSTRY, INNOVATION AND INFRASTRUCTURE<br> | 10<br>REDUCED INEQUALITIES<br>                   | 11<br>SUSTAINABLE CITIES AND COMMUNITIES<br> | 12<br>RESPONSIBLE CONSUMPTION AND PRODUCTION<br> |
| 13<br>CLIMATE ACTION<br>             | 14<br>LIFE BELOW WATER<br>               | *15<br>LIFE ON LAND<br>                          | 16<br>PEACE, JUSTICE AND STRONG INSTITUTIONS<br> | 17<br>PARTNERSHIPS FOR THE GOALS<br>         |  |

\*The project actively contributes to these additional SDG's but they are not specifically part of the data reported and verified by the Gold Standard certification body. They are however experienced by the local population.





## CLIMATE IMPROVEMENT



Avoiding pollution inside homes



Reduction of carbon emissions



A preserved ecosystem



## NATURE PRESERVATION



Less burnt wood



Leading to less deforestation



Limitation of soil erosion



Preservation of biodiversity



# CLIMATE

# PRESERVATION

# ECONOMY

# HEALTH



## ECONOMY & EMPLOYMENT



Leading to gender equality



Decreasing fuel costs



Saving time



Rehabilitated infrastructure



## BETTER HEALTH



Nutrition improvement



Hygiene improvement



Disease reduction





## **CARBON ACTION**

### “HOW CAN WE REDUCE OUR CLIMATE IMPACT

This is the first question the team of CO2logic asked themselves, back in 2004.



There are often limits to the CO<sub>2</sub> emissions that can currently be reduced, and each remaining tonnes of CO<sub>2</sub> has a high cost for society & future generations.

At CO2logic we firmly believe that future generations are not responsible for these “climate disruption costs”. That’s why CO2logic supports companies and organisations in reducing and offsetting their impact on climate & the environment: by supporting & developing climate projects that generate carbon credits. This is the way to give back and restore the balance.

#### A WORD FROM ANTOINE GEERINCKX, FOUNDER OF CO2LOGIC

“There is only one atmosphere and there are no borders for CO<sub>2</sub> emissions. Our climate projects help in avoiding deforestation through education, collaboration, energy efficiency, fuel switch, renewable energy, reforestation, access to clean water. We act to improve the livelihood of local people while addressing the global climate breakdown. We are all interconnected.”





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