



ARCA®



IGEA PROJECT

The future in water sustainability

One of the main needs in critical situations, such as humanitarian emergencies due to conflicts or natural disasters, is the supply of drinking water. Arca was created to meet this primary, logistical necessity to have drinkable water in remote, rural and urban areas.



IGEA PROJECT

IGEA's delocalized water treatment units are dedicated to helping and supporting communities that do not have access to drinking water and also to industrial contexts, such as the use of factories and construction sites. They have been designed and developed to meet the needs of all types of water purification in the most remote areas, which do not have the possibility of receiving drinking water from the management boards of this precious resource.



The IGEA project, a federator of innovative technology, is being developed with a particular focus on the environment, renewable resources and the reduction of social costs on the populations of villages in remote areas of water stressed countries.





About us :

WT.International, in collaboration with **FBB PRIVÉ**, is a company specialised in the design and manufacture of production systems for technologies related to the treatment of all types of water.

Sustainability, simplification and optimisation are part of the company's DNA, with an eye on the environment and the future.

GHGs and WATER

5 %

of global greenhouse gas emissions can be eliminated simply by treating and recycling wastewater.

24 %

of global solutions to reduce GHG emissions depend on water quality and availability.

53 %

of the world's largest companies have seen a dramatic reduction in GHG emissions after adopting IPCC and CDP water treatment standards.

80 %

of the world's water is untreated or wasted. Greenhouse gas emissions from this waste are three times higher than those emitted from conventional treatment.

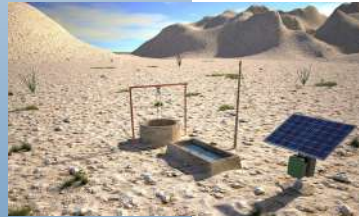
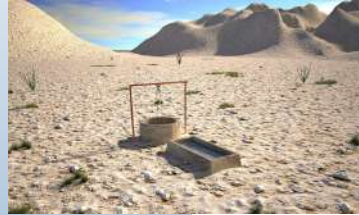
The different areas of intervention

Among the advantages of the IGEA model, the total possibility of location in any place, the possibility of making the treatment plant completely mobile or fixed, according to needs, and the characteristic of being able to work with any type of water. Just one water source is needed for the operation of the system; next to a well in the desert, on the banks of a river or lake in mountainous or oasis areas, on an earthwork allowing the exploitation of groundwater or even on the seashore.

Through the installation of a lift pump, the water becomes accessible and ready to be treated and made drinkable without the use of chemicals.



Steps for installing an IGEA box



The installation stages are mainly carried out in four main phases:

- 1-** Selection of the intervention area with analysis of the water to be treated;
- 2-** Installation of the pump and solar panels;
- 3-** The installation of the IGEA box which will be within the reach of the users and in a safe position;
- 4-** Installation of a safety diesel generator and start-up of the system.

IGEA project



IGEA project



Technologies in an IGEA box



The technologies present inside the IGEA boxes include the installation of various physical filters (sand filters, softeners, cartridge filters, reverse osmosis) and two disinfection technologies.



A first sterilisation through UV lamps and a second technique, which allows the in-situ production of ANECO, a biodegradable biocide that has the capacity to restore and maintain the quality of drinking water, without the need to add harmful and toxic chemicals.



With this configuration, the IGEA boxes become completely independent and require little human handling.





It is more than enough to drink clean, ready-made water, without chemical aftertastes, always fresh for a reasonable consumption, but available.

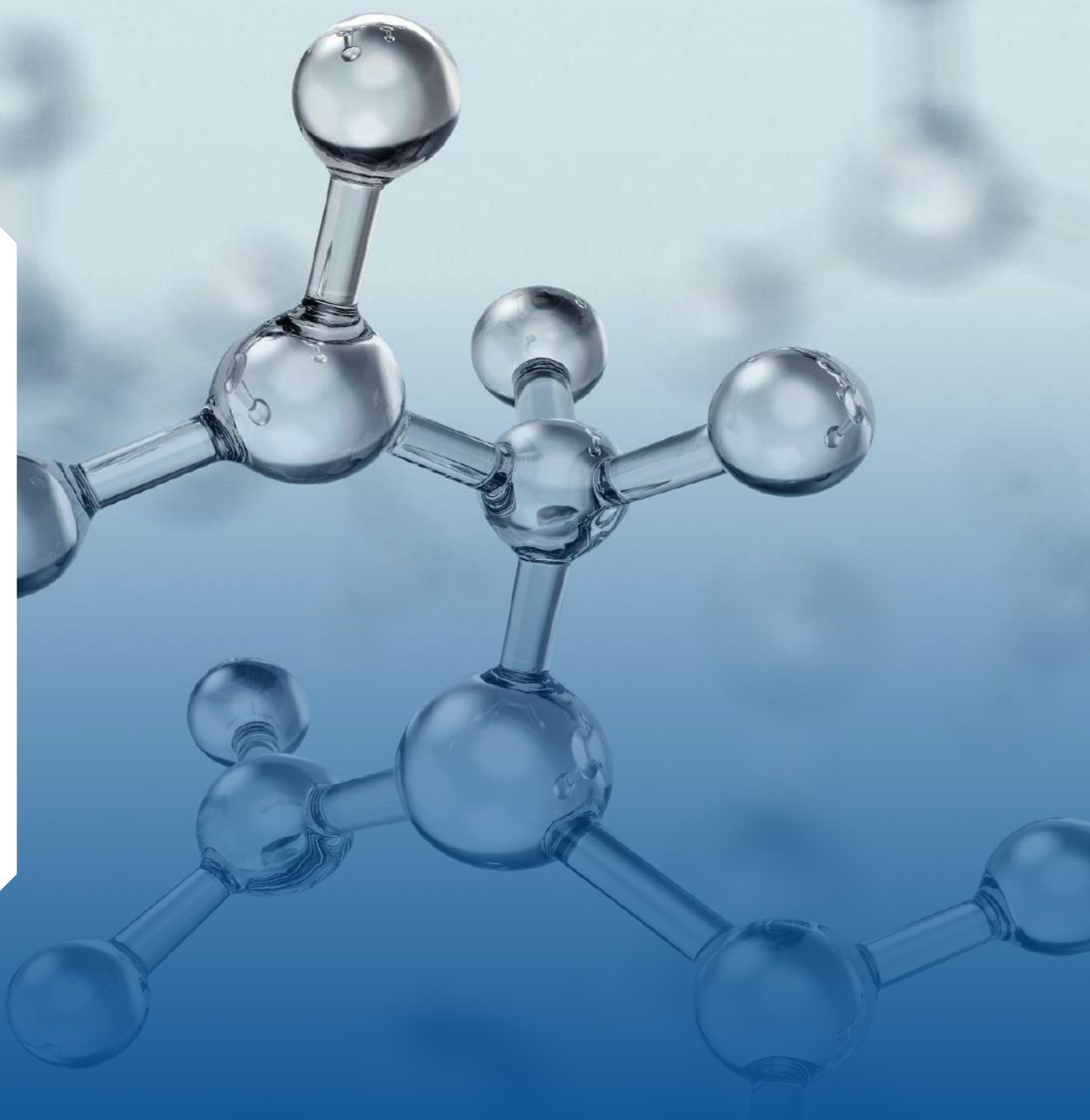
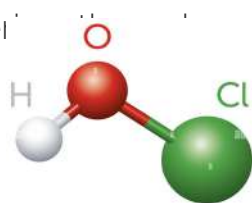


The innovation of the IGEA boxes, other different filtration technologies, is represented by ANECO.

The water will be made drinkable with the use of ANECO, a powerful non-toxic disinfectant without synthetic chemicals, composed of a solution of hypochlorous acid (HClO). This biocide is recognised and authorised in Morocco by the ONSSA and the DMP, and has been successfully tested by ONEP.

Being very powerful and effective, it allows to destroy 99,99 % of bacteria, yeasts, spores and algae with a minimal contact time.

Hypochlorous acid is a completely biodegradable molecule, as it is also naturally produced by the white blood cells of all mammals, as it plays an important role in the immune system by killing pathogenic bacteria through oxidation and chlorination.



The tests on ANECO

Positive results and follow-up and testing protocols in Morocco are carried out by the microbiology department of the Pasteur Institut in Casablanca.



Institut Pasteur
du Maroc



ROYAUME DU MAROC
MINISTRE DE LA SANTE
INSTITUT PASTEUR DU MAROC



Institut Pasteur
du Maroc

المملكة المغربية
وزارة الصحة
معهد باستور المغرب

Casablanca, le 27/07/2020

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F.B.B PRIVE sarl
N°57, complexe Commercial Kawkab Inane El Harti, Gueliz, Marrakech

Nos références

Echantillon N° : 1630 /20

RAPPORT D'ANALYSE

ANALYSE DEMANDEE : Détermination de l'activité bactéricide
(Conditions obligatoires et additionnelles)

IDENTIFICATION DE L'ECHANTILLON

Nom de produit : ANECO C100 (Désinfectant chimique)

Date de réception : 16/07/2020

N° de Lot :

Date d'essai : 16/07/2020

Conditions de stockage : T° amb

Date Prod :

N° Commande :

Date Exp :

METHODE D'ESSAI (Norme NM 03.5.159 :2010 en concordance avec NF EN 1040)

Méthode : Filtration sur membrane

Diluant : NaCl : 8,5g compléter à 1000 mL

Nombre de boîte par mL : 01

CONDITIONS EXPERIMENTALES

Concentrations d'essai : 80%

Conditions obligatoires :

*Souches test : *Pseudomonas aeruginosa* CIP A22 et *Staphylococcus aureus* CIP 53154

Conditions additionnelles :

* Souches test : *Escherichia coli* CIP 54127

Température d'essai : 20 ± 1°C

Temps de contact : 5 minutes

Température d'incubation : 37 ± 1°C

SYNTHESE DES RESULTATS

Pour le produit « ANECO C100 », la concentration bactéricide déterminée selon NM 03.5.159 à 20°C, avec un temps de contact de 5 minutes, en utilisant *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Escherichia coli*, comme microorganismes d'essai est : 80%(V/V).

Le produit « ANECO C100 » présente une activité bactéricide dans les conditions de l'essai. Afin de qualifier le produit pour un but défini, il doit être évalué à l'aide d'essais normalisés complémentaire correspondant à l'usage auquel il est destiné.

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Authorised and recognised by :



EUROPEAN
UNION

USA

CANADA

MOROCCO



AWT 1000



LWT 3000



TWS 1000

Three different models to suit all situations and needs

The use of IGEA and ANECO contributes to ...

CARBON TAXES

Reduce CO₂ emissions from transport and logistics of chemicals by producing in-situ

Reduce CH₄ and C₂O emissions from conventional wastewater treatment

Disposing of plastic waste from chemical processing

GENERAL COSTS

Reduce large capital costs for major works, such as pipelines and stations

Creating the availability of drinking water, allowing a reduction in human health costs

To have total control over the costs of installation and management, from 1\$ per person per month

SOCIAL IMPACT

Create proximity to water, by raising awareness of water as a resource

Raising awareness and creating new skilled jobs

Reduce and control water stress by controlling the amount of water supplied

Drinking water management

- 11% of the world's population does not have access to safe drinking water;
- 90% of the world's population without access to water lives in rural areas;
- 1,000 children under the age of 5 die every day from diseases related to unsafe water.

According to the World Bank report, water availability in Morocco has fallen from 3,500 m³ per person per year in 1960 (for a population of 12.3 million) to 731 m³ per person per year in 2005 (for a population of 30.4 million). By 2015, this figure had fallen further to 645 m³, well below the 'water poverty level' of 1,000 m³ per person per year. After the year 2020, water stress is still increasing, and continues to favour the decrease of litres available for the Moroccan population.



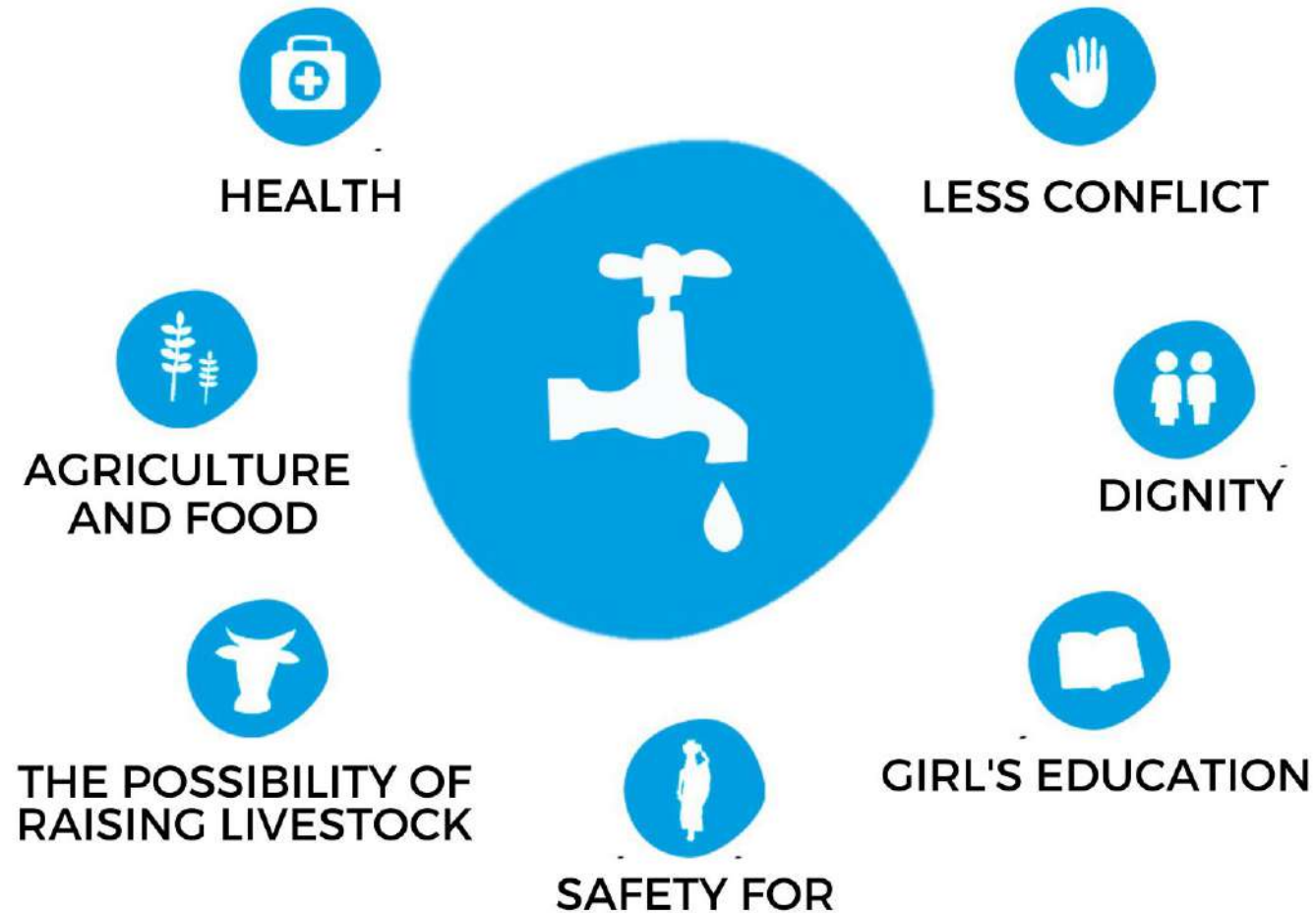


The generalisation of access to drinking water in rural areas...a priority

ONEP has developed a strategy for drinking water supply in rural areas, the unifying principles of which are as follows

- Consider drinking water as a right for all citizens;
- Take advantage of the solidarity between urban and rural areas;
- Adopt a participatory approach with rural populations;
- Promote partnership with local authorities;
- Aim at the sustainability of the drinking water service;
- Ensure the quality control of the water distributed;
- Give priority to structuring projects and to regions with a shortage of water resources.

What are the issues behind access to clean water?

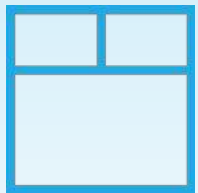


Advantages

A STRATEGIC, MOBILE AND ECOLOGICAL SOLUTION

IGEA's mobile and delocalized water treatment units are today a strategic choice for a country like Morocco, given the multitude of isolated villages and populations living in rural areas, estimated at 13 million inhabitants.

Moreover, they are completely mobile, secure, adaptable to any climatic conditions and situation, and to any water quality.



MOBILE



SECURED




ECOLOGICAL



ECONOMICAL



Supplier of the world's most valuable resource

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