



**FORAGE CACTUS AND FRUIT CROPS  
IRRIGATED WITH TREATED  
WASTEWATER**

SARA is an innovative technology inspired by the principles of the circular economy. It naturally treats domestic wastewater, eliminating up to 99.9% of pathogens while preserving essential nutrients for reuse in agriculture. This sustainable solution provides a concrete response to the challenges of rural sanitation, water scarcity, and environmental contamination. By transforming sewage into treated water, SARA improves families' quality of life, strengthens family farming, and fosters harmonious coexistence with Brazil's semiarid environment.



**SARA SINGLE-HOUSEHOLD UNIT  
(FIBERGLASS MODEL)**



**SARA SINGLE-HOUSEHOLD UNIT  
(MASONRY MODEL)**

# SARA

environmental sanitation and water reuse system



The SARA system was designed to adapt to the diverse realities and wastewater treatment needs of rural areas, ensuring efficiency and sustainability in multiple contexts:

**Single-household SARA:** serves homes with up to 10 people.

**School SARA:** designed for schools with up to 200 students, promoting health and environmental education.

**Community SARA:** designed to serve 20 to 50 households, strengthening entire communities.

This flexibility makes SARA a versatile solution, capable of generating both social and environmental impact at different scales.



**SCHOOL SARA SYSTEM**



**COMMUNITY SARA SYSTEM**

With patent deposit BR 102021010010-9, SARA has already been implemented in several communities across the Brazilian semi-arid region. It has been recognized by the United Nations as a promising technological solution for decentralized sanitation.

By ensuring safe treatment and intelligent water reuse, SARA:

- reduces waterborne diseases,
- improves quality of life,
- preserves the environment, and
- boosts agricultural production and income generation.

SARA is a strategic technology for promoting rural sanitation, with high potential to become a public policy of significant social and environmental impact.

