

CASSA COMPANY- ECOLOGICAL AND SUSTAINABLE ARCHITECTURE IN GUATEMALA

[CASSA is an ecological and sustainable construction company](#) that operates in Guatemala. The company was created in 2013 by Antonio Aguilar, a Guatemalan astrophysicist committed to the challenges of sustainable development.

The company uses environmentally friendly natural materials such as bamboo, stone, wood and mud for construction, to reduce the environmental footprint and mitigate the causes of climate change. In addition, each building is equipped with solar panels that generate clean electricity, with systems for capturing, filtering and storing rainwater and with systems for recycling and a comprehensive treatment of sewage.

The company offers complete construction and supervision services for building homes, schools, business or any other project. CASSA also works to expand and remodel existing properties, building new spaces, or modifying and improving existing ones, taking advantage of available resources, integrating the new with the old.

All constructions are ecological, taking advantage of new solutions and valuing natural resources to reduce environmental impact and guarantee energy savings. [The company works with four main principles:](#)

- *uses natural materials* such as bamboo, stone, clay and wood, of the highest quality, treated and conditioned to last a lifetime. These natural materials increase the aesthetics and comfort of any building, as well as strongly reduce the environmental impact while mitigating the causes of climate change.
- *designs and builds water systems* using appropriate technologies and methods to supply water maximizing the existing sources and minimizing the ecological footprint. The company works on the complete cycle from capture/supply, storage, filtration, distribution, treatment, reuse and reabsorption. The systems, for example, take advantage of rainwater captured with pipes on the roof and stored in a cistern, that supplies the house through a water pump. The water is made drinkable through an Ecofilter that cleans it.
- *Uses energy solutions* that allow to generate and use energy in renewed, efficient and clean ways. Using photovoltaic solar panels and wind turbines, the company generates electricity that can be used connected to the grid, or in isolated installations. They also integrate solar water heating, as well as appropriate cooking systems and highly efficient stoves that reduce the amount of fuel needed.



- *Designs and builds comprehensive sanitation systems* for the treatment of gray and black water. These systems separate, filter, and treat the wastewater, until they meet the necessary quality standards. The gray water is used in orchards or gardens.

Among the activities carried out by the CASSA company, the systems collecting gray water generated by washing machines and showers, [represent an innovation in the country](#). In most of the houses, blackwater, greywater and rainwater drain into the same pipe, tripling the amount of blackwater which mostly goes untreated into lakes and rivers. In the systems realized by CASSA also in homes already built, by separating the waste water it is possible to use the gray water for indoor orchards, thus reducing further contamination of aquifers and reducing the amount of clean water used for gardening.

The company uses bamboo in most of its works, valuing the extraordinary characteristics of this *vegetable steel*, ideal for construction and capable of absorbing more carbon than it emits. In addition, the bamboo structures are resistant to tremors and earthquakes that are very frequent in Guatemala, reducing the impacts in homes and especially for the population.

[All the projects built to date are presented on the company's website](#), with a factsheet allowing to appreciate their characteristics. New home designs that may be of interest to new clients are also presented. On its Facebook page the company presents the [2020 Catalog](#) of buildings adapted to urban or rural contexts and to different requirements.

Since 2013, the CASSA company has achieved impact results in the country with its ecologically built homes: 41 Projects Built in different Departments of Guatemala; 6,810,000 Clean water capacity installed (gallons); 5,164,375 Water treatment capacity installed (gallons); 295,650 Kilowatt-hours of clean energy delivered.

In addition, by building beautiful houses with local natural and low-cost materials, earthquake-resistant and self-sufficient, the CASSA company contributes to a cultural change in the construction sector, promoting the most innovative trends in modern architecture which are inspired by the principles of sustainability and by a new agenda to pursue them.

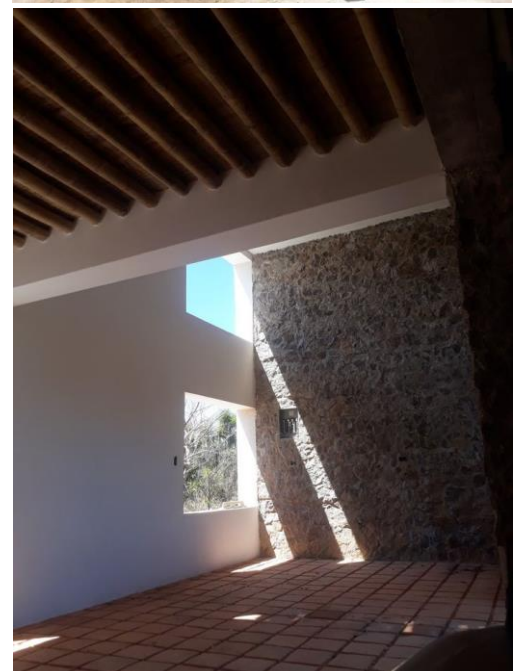
In 2019, the company CASSA has been recognized as one of the 10 initiatives that promote the Sustainable Development Goals, within the framework of the [Award organized by UNDP and the Connected Cities Foundation](#). In 2018, the company was recognized as one of the [29 Inspirational Practices of the Contest: Housing at the center of the new urban agenda](#). The Contest, organized by the UHPH Urban Habitat and Housing Practice Platform, has selected innovative practices by evaluating 290 proposals from 21 countries in Latin America and the Caribbean.

To know more

[CASSA Company website](#)

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