

Solar-Powered Irrigation Systems for Food Security in Colombia



Project duration: 12 months

Photo: ECOCEANOS

In 2023, EKOenergy granted €15,000 to Ecoceanos Corporation, a Colombian NGO, enabling the Zenú indigenous community to install a solar-powered pumping and irrigation system on their communal lands. This sustainable energy and water source has brought numerous benefits to the community.

For over 25 years, the Zenu community of San Andrés de Sotavento has struggled with water scarcity as nearby sources dried up. Before the project, the lack of a nearby water source imposed a significant burden on the community, severely limiting agricultural productivity and contributing to malnutrition, as members had to walk over 45 minutes to fetch water.

With funding from EKOenergy's Climate Fund, the community installed a 9 kW solar system consisting of 20 panels, each with a capacity of 450 W. This system powers a 10 HP hydraulic pump, ensuring a constant water supply for an irrigation system that covers 22 hectares of crops such as corn, papaya, and avocados. Additionally, the system provides water for the community's daily needs, including drinking and livestock care, significantly reducing the burden of water collection.

Based on surveys, the project has enhanced food security for 290 Zenú families. This improvement is attributed to better agricultural practices, which have increased and diversified yields while lowering food prices.

To ensure the project's benefits remain within the community, it included training 24 local youth in solar energy installation and

maintenance. A portion of the increased agricultural profits is allocated for ongoing system maintenance, while a volunteer team of six Indigenous women manages these funds. Additionally, the project included training 285 Zenú indigenous youth on the benefits of renewable energy, so they could share this knowledge with their families.

The installed solar panels also support education by providing energy to the local school. This surplus energy powers six outlets, allowing students to charge their electronic devices.

Despite challenges such as rising material costs and security issues in the area, the project delivered multifaceted benefits to the community. The sustainable water access provided by the system has strengthened the community's self-sufficiency, enhanced climate resilience through improved food production, and promoted the use of modern technology in education. As a result, the project has made significant contributions to several Sustainable Development Goals, including SDG 2: Zero Hunger, SDG 3: Health and Well-being, SDG 7: Affordable and Clean Energy, and SDG 13: Climate Action.

Thanks to the users and sellers of EKOenergy-labeled energy worldwide for making projects like this possible!

Our Climate Fund



Focus on energy poverty and multiple Sustainable Development Goals



New projects annually in lower-income countries



Projects run and monitored by trusted NGOs



Selected through a transparent process



In 2023, EKOenergy approved grants for 20 new projects



All EKOenergy users contribute 0.10 € / MWh to the Climate Fund

EKOenergy - the global ecolabel for renewable energy

EKOenergy is [the global ecolabel](#) for energy (electricity, gas, heat and cold). We are a non-profit initiative working to fight climate change, protect biodiversity and realise the Sustainable Development Goals.

Energy with the EKOenergy ecolabel fulfils additional [sustainability criteria](#). Through our ecolabel we also raise money for our Climate Fund, which is used to finance [new renewable energy](#) projects in developing countries.

EKOenergy's network of authorised sellers makes EKOenergy-labelled energy easily [available in over 80 countries worldwide](#). Many consumers of EKOenergy-labelled energy choose to use our ecolabel on their website or products to demonstrate their commitment to a 100% renewable and sustainable world.

EKOenergy users include large international businesses such as Microsoft, SAP, VMware, Pampers, Workday, SCHOTT and the Iliad Group, as well as cities, public organisations and individual households.



Sustainability criteria: additional value for our planet

	EKOenergy	Other renewable energy	Grid mix
Recommended by environmental organisations	✓	?	-
Extra criteria to minimise the impact of energy production on nature. For example, hydropower installations with fish passes and wind turbines outside important bird areas	✓	?	-
Renewable energy tracked by EACs, such as GOs and I-RECs (In line with Greenhouse Gas Protocol Scope 2 Guidance)	✓	✓	-
Contributes to renewable energy projects in developing countries, advancing the realisation of multiple Sustainable Development Goals	✓	-	-
Available and recognised worldwide	✓	-	-
Supports the promotion of a transition to renewable energy worldwide	✓	-	-

Endorsed by global standards

EKOenergy is recommended by many international environmental standards such as CDP, the Greenhouse Gas Protocol, Greenkey for hotels and LEED-certification for buildings.

"A growing number of hotels in Europe have already switched to EKOenergy and include the EKOenergy logo in their communication with their guests. Follow their lead and go the extra mile."

"Ecolabels are a way for companies to do more with their purchases. EKOenergy, mentioned by the GHG Protocol Scope 2 Guidance, is such an option: it is a mark of quality which comes on top of tracking certificates."

"EKOenergy represents the best available option for the sustainable and additional consumption of renewable electricity within Europe."

