

Andean farmers use age-old technique amid climate change

February 11 2024, by Juan Carlos Cisneros with Carlos Mandujano in Lima



An aerial view shows a pre-Hispanic agricultural system called Waru Waru, in a field in the Acora district in Puno, Peru, on February 6, 2024.

From the sky, they look like huge, circular patterns made by aliens—but in fact, they are an age-old technique farmers have brought back to fight the climate crisis on the Andean plateaus of Puno.

On the border of Peru and Bolivia, the Waru Waru—an indigenous Quechua word that means ridge—are once again protecting potato and quinoa crops as they did in the region 2,000 years ago.

"It is an [agricultural system](#) that lets us face climate change, which has changed the seasons of the year. It is very beneficial in times of drought and frost," farmer Cesar Cutipa, 42, told AFP.

Puno lies on Lake Titicaca about 3,812 meters (12,507 feet) above sea level. Farmers have made six Waru Waru nearby in flood-prone fields.

Furrows form a rectangular platform, where planting is done. Surrounded by water, the planting beds are up to 100 meters long, between four and 10 meters wide and one meter high.

The water around the plants creates a microclimate, absorbing heat from the sun during the day and radiating it back at night to ward off frost in [sub-zero temperatures](#).

"The Waru Waru cannot flood during the [rainy season](#) because they have an intelligent drainage system that reaches the river. They have many advantages," agronomist Gaston Quispe told AFP.

In 2023, when Puno suffered one of the largest periods of drought in almost six decades, Waru Waru helped farmers cope with lack of water and avoid [food shortages](#).

The area is home to mostly indigenous farming communities, mostly Quechua in Peru—and up the Andes—and both Quechua and Aymara in

Bolivia.

"We are able to live here peacefully because we have our potatoes, our quinoa and barley. We can be in peace without going to the city," said 22-year-old farmer Valeria Nahua.

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