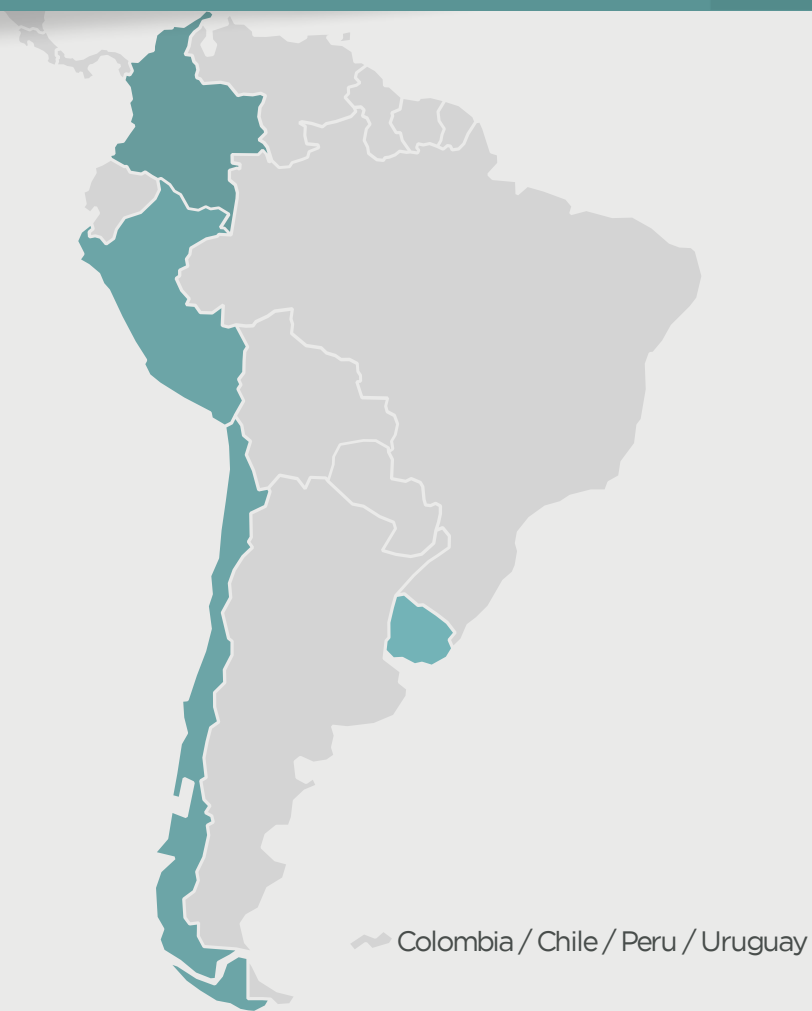
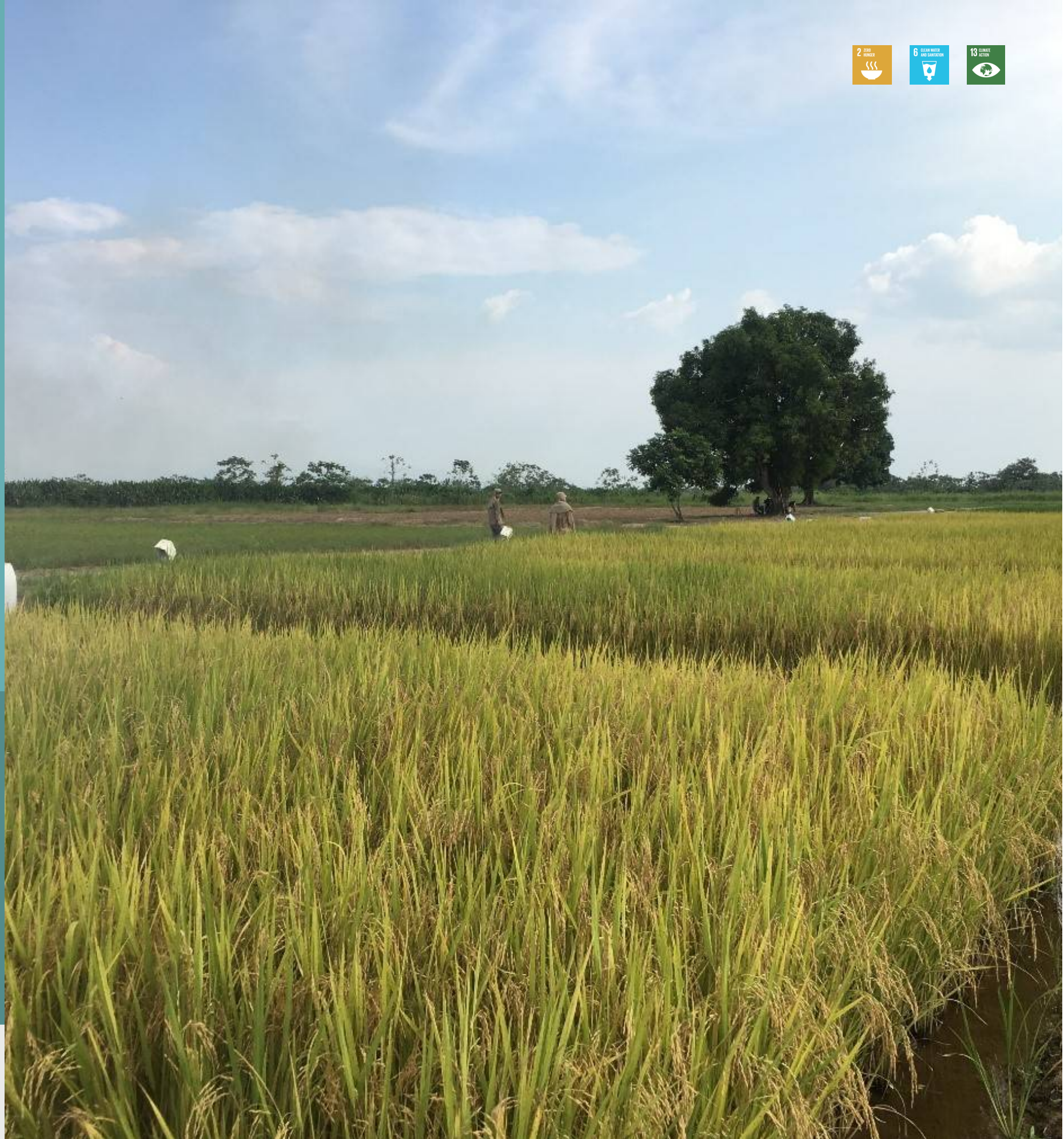


Towards more sustainable management in rice cultivation

An initiative that brings together three countries with the purpose of obtain an efficient and competitive production with a lower environmental impact under the implementation of AWD technology in two levels (moderate and intensive) in rice crops.



Colombia / Chile / Peru / Uruguay

How to reduce gas emissions and conserve water resources?

The implemented initiative

Through the project more rice with less emissions, the development of a technological innovation is proposed through small farmers will be able to maintain and even increase their yield, taking into account climate change mitigation, natural resource management and sustainability in the rice cultivation. Under these premises, the study is looking for locally validation to the implementation of Alternate Irrigation Technology - AWD, at two moderate and intensive levels generating benefits like a efficient and competitive production with a lower environmental impact under the, in rice crops on

smallholder farms. from Colombia, Peru and Chile. This work is financed with resources provided by the IDB through the FONTAGRO platform and with recourse in Colombia of the National Federation of Rice FEDEARROZ, in Peru of the Universidad Agraria la Molina and in Chile by the Institute of Agricultural Research (INIA). Under the regional cooperation initiative, it is proposed to transfer the practices and technologies that are generated as a result of the project.

A sustainable technological proposal

The technological solution

The practice of intermittent irrigation management, applying technologies to alternate humidity and drying (Alternate Wetting Drying AWD), can increase the efficiency of water use and at the same time reduce methane emissions without affecting performance. Within the framework of this project, three different localities are evaluated, Saldaña in Colombia, Ferreñafe in Peru and Parral in Chile. In the selected farms, experimental plots were established during the first two years, contrasting conventional irrigation management

(control) with two AWD alternatives (AW1 humidity drop at 5cm and AWD 2 at 10cm). In each study site it has been possible to generate two indicator cycles: production (constant yield), environmental impacts (reduction of greenhouse gas emissions) and efficiency in the use of resources on the farm (reduction of water consumption) . For the 2021 year, validation areas will be established on a commercial scale with the technological advances found during the first phase of the study.

 **25.9%**
Water consumption savings

 **1.553**
Participants in transfer events

 **37.5%**
Methane decrease

 **15.3%**
nitrous oxide decrease

MÁS INFO



Results

- Regarding GHG, there are dissimilar results between countries, treatments and evaluation cycles. For Colombia, there were reductions between 66.7% and 98% of the accumulated net flows of CH₄ and of 21.9% and 100% in the accumulated net flows of N₂O, except in the third cycle where due to the permanent rain conditions there was no decrease ; Chile presented a decrease in methane between 6.7% and 37% and 26% in N₂O. In the case of Peru, a methane reduction of 37.8% was obtained up to 93% and an increase in the emission

of N₂O.
- There were differences in the reduction in water use with respect to the control: in Colombia, it was between 19.1% and 56.3%, in Chile between 3.4% and 28.8%, and in Peru between 15.5% and 23.2%
- Regarding performance, different results have been found in the evaluated localities, showing in general terms that there are no statistically significant differences.
-13 events have been held with 1,553 participants

Main donors



Participating Organizations

