

SUPPORT FOR THE FORMULATION OF STRATEGIES AND THE DEVELOPMENT OF ACTIONS AIMED AT IMPROVING ACCESS TO WATER AND REVITALIZING WATERSHEDS IN BRASIL



Code: 4745-00

Country: Brasil

Starting year: 2016

Year completed: 2025

Objective

Improve the implementation of integrated management of water resources and their multiple uses in Brasil.

NBS ANSWERS

How has IICA integrated NbS into its projects?

The project integrated principles of nature-based solutions (NbS) by developing strategies to improve access to water through sustainable desalination management and watershed revitalization. Although it does not implement NbS directly, it addresses water scarcity and food insecurity in the semi-arid through biosaline agriculture with salinity-tolerant crops, uses natural processes, and reduces environmental impacts by proposing the proper management of salt concentrate, avoiding soil and groundwater salinization. In addition, it promotes food production with marginal waters, fosters the resilience of rural communities and values local knowledge. However, to be fully considered a BNS it would require clear biodiversity conservation and recovery objectives, beyond the agricultural use of saline waters.

What lessons learned can you share about working with farmers to implement NbS?

Active participation of the communities: The implementation of the solutions was carried out with strong participation of local producers, which generated a sense of ownership and greater sustainability of the actions;
Valorization of local knowledge: The project took into account the empirical knowledge of farmers to adapt management practices to local realities;
Continuous technical training: Farmers were trained to interpret water quality, adapt irrigation, choose appropriate crops and monitor results - strengthening their autonomy and capacity to adapt to climate change;
Gradual technological adaptation: The introduction of technologies was carried out respecting the technical and social constraints of the communities.

What examples of innovation in NbS can you share from your experience at IICA?

If associated with direct environmental recovery or conservation objectives, the use of marginal water from brackish groundwater, saline water and desalination concentrate is an innovative alternative to conventional water use, contributing to the preservation of this resource.

How are you promoting NbS education and training among farmers?

In this project, accessible technical manuals were prepared on appropriate management practices with brackish water; local training was conducted with technicians and producers, based on real data from participating communities; participatory methodologies were used, such as workshops, field days and exchanges between communities; participatory monitoring with soil salinity and crop performance indicators was encouraged; and local technicians were trained as multipliers, strengthening regional knowledge networks on MbS practices adapted to the semiarid region.