IMPROVING THE SUSTAINABILITY OF MESOAMERICAN LIVESTOCK FARMING AND CLIMATE ADAPTATION IN ARGENTINA

Code: 5393-04

Country: Argentina

Starting year: 2024

Year completed: 2028

Objective

Train local communities to improve sustainable livestock management practices and adaptation to climate change, integrating remote sensing technology.

NBS ANSWERS

How has IICA integrated NbS into its projects?

At IICA, Nature-Based Solutions (NbS) have been integrated into the TeleGAN project through:

Participatory territorial diagnostics, which identified local sustainable practices and adaptation needs such as grassland restoration, water source conservation, and the use of climate-adapted pastures.

Remote sensing and citizen science to monitor vegetation cover, soil moisture, and landscape changes, facilitating sustainable management decisions.

Technical training, with workshops on climate adaptation, good livestock practices, agroforestry, pasture rotation, and animal health with an ecosystem approach.

Demonstration plots and field schools promote sustainable water and forage management using ecological criteria.

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

One of the main lessons so far is that collaboration improves when local knowledge is recognized. Involving producers in participatory assessments and in the planning of sustainable practices has generated greater interest and openness toward NbS. We have also seen that these practices generate more enthusiasm when they are associated with concrete benefits, such as improving productivity or reducing costs, for example, through pasture rotation or water harvesting. Another important lesson is that in order for women to participate actively, gender barriers must be intentionally addressed. We have begun to do so with differentiated methodologies, flexible schedules, and safe spaces that take into account their reality.

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

One of the main innovations we have promoted at TeleGAN is the use of satellite monitoring applied to livestock management and the planning of sustainable practices. This technology allows us to monitor vegetation cover and soil moisture (NDVI and NDMI indices), which makes it easier to identify degraded areas, plan pasture use, and design pasture rotation and recovery strategies, which are key practices within the SbN approach. In addition, we promote the integration of small ruminants and women-led family gardens as complementary strategies for food security and productive diversification. Finally, we apply a citizen science approach, where producers themselves validate satellite information with field observations, strengthening local decision-making and technical empowerment of communities.

How does it promote education and training on SbN among farmers?

The project implements a progressive training strategy, integrating remote sensing as a cross-cutting theme through practical training in the use of satellite images for sustainable farm decisions, teaching producers to interpret vegetation and moisture maps. In addition, it develops field schools and demonstration plots to apply NBS as rotational pasture management, grassland enrichment, tree integration, and water source conservation, using a learn-by-doing and peer-learning methodology. It also has a citizen science training program, training producers to collect field observations (georeferenced photos, vegetation records, animal health, and water availability), strengthening their role in environmental monitoring. Finally, a gender perspective is mainstreamed through inclusive Field Schools (minimum 30% women) and plots led or co-led by women, applying participatory, culturally relevant, and gender-sensitive methodologies to strengthen their leadership, access to technical knowledge, and participation in climate adaptation, including small livestock and value addition.

Link:https://apps.iica.int/DashboardProyectos/programas/Detalle?CRON=5393&SCRON=04