Multipurpose Silvopastoral Systems as a sustainable strategy for the reconversion of family livestock in Peru and Colombia

A strategy to improve the productive systems of small livestock farmers in Colombia and Peru that is integrated by the establishment of multipurpose silvopastoral systems (MSPS), field schools and a Regional Innovation Platform.

Silvopastoral systems (SPS) have become a form of livestock production with a sustainability approach, since its implementation contributes with social, economic and environmental benefits.

The implemented initiative

This project presents a sustainable alternative to improve family livestock through the implementation of multipurpose Silvopastoral Systems (MSPS) in Peru and Colombia. Adapted woody species that provide various functions in the agroecosystem and alternative uses on farms will be integrated. It is expected to contribute to reducing the gap between bovine production and adaptation to climate variability through the economic valuation of ecosystem services provided by this type of system. Likewise, through field schools for training farmers and the generation of a regional innovation platform, innovation, improvement and the generation of new useful knowledge for the implementation of SSPM will be promoted.

A successful establishment of MSPS must be accompanied by a training and technology dissemination strategy that links producers in all stages of the process.

The technological solution

Multipurpose silvopastoral systems (MSPS) integrate three plant components (pastures, shrubs and trees) distributed in different strata within the livestock system (low, medium and high). The planting density of woody species is between 1,000 and 3,000 plants per hectare and is adjusted to the needs of the rancher, which reduces establishment and management costs and facilitates the appropriation of technology. Likewise, the process is accompanied by a training strategy that includes the publication of primers or manuals and the holding of field schools with key aspects to replicate the MSPS, including the stages of diagnosis, planning, planting and use of the system. Finally, a Regional Innovation Platform will be created as a technology update and dissemination strategy that makes it easier for families of small producers, technicians, academics, unions and regional institutions to make decisions regarding the orientation, implementation and methodological designs of MSPS.

Results

40 family farms between Peru and Colombia with multipurpose silvopastoral systems implemented on their farms to improve sustainability and productivity. 100 percent of said family farms trained to implement SSPM including the stages of diagnosis, planning, sowing and use of the system (at least 450 producers, academics, technicians trained virtually and/or in person).

A regional Innovation Platform as a technology update and dissemination strategy that makes it easier for families of small producers, technicians, academics, unions and regional institutions to make decisions regarding the orientation, implementation and methodological designs of MSPS compatible with livestock production and the environment.