

SUSTAINABLE LIVESTOCK PRODUCTION, HEALTH AND ENVIRONMENT IN THE HIGH PLATEAU

IDRC Grant reference Number: 107700-001

Report Type: Executive Summary 2nd Technical Report

Period Covered by Report: March - September 2015

Submitted: October 2015

Country/Region: Bolivia, Latin America

Research Institution: Protección del Medio Ambiente Tarija, PROMETA.

Research Team: Alberto Cortéz
Armando Gonzalez
Claudia Oller
Georgina Limón
Javier Guitian
Liz Perez
Roberto Cabrera
Ricardo Aguilar
Verónica Vega

Contacts: Roberto Cabrera rcabrera@prometa.org

1. Background

Sustainable Livestock Production, Health and Environment in the High Plateau of Bolivia, is aimed to promote evidence-based policies linking livestock production, environmental sustainability and health issues affecting rural poor populations of the Bolivian High Plateau in the department of Tarija, which is composed of two municipalities, Yunchará and El Puente.

The specific objectives of the Project are:

1. Identify, quantify and prioritize the main barriers for achieving sustainable production of safe sheep and llama meat in the study area, assess the burden and transmission patterns of associated zoonotic diseases and their economic impacts upon livestock and human health.
2. Assess the suitability of different policy options based on an integrated analysis of interrelationships between the sustainability of native pastures, stocking density, animal productivity, and the prevalence of selected diseases in livestock and humans.
3. Develop pilot multi-sector interventions to assess facilitating and limiting factors, economic trade-offs and feasibility of multi-stakeholder policy implementation alternatives.
4. Strengthen the leadership and capacities of local actors and promote joint spaces for community and policy actors to develop new policies linking healthier livestock production, native pastures sustainability and improved human health of vulnerable populations in the Department of Tarija, and assess potentials for replication in other departments.

2. Achievements

During the last 6 months, the “Ecohealth” approach, objectives and activities of the research component of the Project were strengthened in several spaces of interaction with new political authorities, academics and social actors.

These actions allowed the start of “pilot” activities and the implementation of the transversal study in eight communities of Yunchará and El Puente municipalities. The Project team implemented all the agreements with the governmental services of public health and animal health (SEDES and SENASAG) and the university “Juan Misael Saracho” (UAJMS).

Indeed, one of the solid progresses made during the semester reported was the transversal study of parasitic diseases on livestock and the study on native pasture condition and carrying capacity. As part of these studies, the field work needed to assess native pastures and estimate carrying capacity has been completed in 8 communities and 80 households from the same communities have taken part in the transversal study to generate baseline information and assess the presence of parasites in livestock. Given the perceived importance, by the community, of pasture

management / livestock nutrition and livestock health for their livelihoods a high level of community engagement has been achieved with these activities.

Additionally, in collaboration with governmental services of public health hydatidosis, a disease suspected but not reported before in this area, has been confirmed. In this regard, authorities and Project team, not only have agreed to control that parasitic disease in the short time, but also to draft a policy proposal in the medium term. Being able to identify a major cause of concern for the communities has been a major achievement that will strengthen community engagement with the project and will allow the project to better align with community needs as hydatidosis will now be the target of student research projects in collaboration with Universidad Tomas Frias.

It is important to highlight the strengthening of capacities of animal health promoters, educational authorities and teachers, because their commitment is having a fundamental role in the implementation of activities on human and animal health promotion.

Moreover, the pilot schemes conducted by students of UJAMS University are at the data processing stage and laboratorial analysis. The engagement of the Dean of UAJMS agricultural and forestry faculty has been a particularly important achievement. Currently, the majority of the students graduating from this Faculty choose other certification options different to research. Through the project, a number of students will be able to graduate following the research option. This is of particular importance for the University as they are trying to strengthen their research profile.

Progress

The studies conducted by students of UJAMS University have resulted in a substantial progress of about 60% of the survey of nature pastures in both rainy and dry seasons. The results are been processed at the laboratory. This research will enable competent authorities and institutions reinforce conservation measures concerning native grassland, agricultural practices and livestock management.

As for human health, in order to facilitate a wider scope of the research, several meetings were organised with representatives of the health system at its different levels: Departmental, municipal and communal. The same was done with the educational system. The scope of the human health component has been revised resulting in a refinement of the study protocols. Coordination of activities with the local units of the Department of Health (SEDES) in the study municipalities has been achieved with project activities to be run in parallel and complementing Department of Health activities.

In respect of livestock production component, the Project team has collected 795 samples at 80 households, which represent the 100% of the study expectations. The results are being discussed with the communities and stored in a database. This represents, in terms of impact, an important

output from the Project, as it is the first time such a comprehensive assessment of the parasitic infections of livestock in the area is carried out.

Likewise, technicians have continued with the initiatives regarding to animal health, livestock management and conservation of grasslands and seeding of supplementary food for animals. Also, veterinary promoters were trained on disease prevention.

With regard to knowledge management, in the context of a second workshop, the Project team has organised several meetings with stakeholder representatives. Likewise, linked to urgent requirements of community authorities, families and teachers, the Protocol was enhanced in all the research areas and in both quantitative and qualitative aspects.

The Project team has continued with the activities of a knowledge management system that includes monitoring and evaluation, dissemination of results and the mapping of actors.

3. Planning the way forward

The main actions projected for the next semester are stated below:

- Following coproparasitological results from children and in collaboration with medical personnel of SEDES in the two municipalities, a treatment and monitoring system for children will be set up.
- Initiate activities for longitudinal study at 120 households of the eight communities (i.e. extending the study to 40 extra households); as part of this longitudinal study, a number of activities will be initiated in the study households: i) diagnosis and monitoring of child malnutrition ii) assessment of diarrhoeal disease in children iii) assessment of water quality and hygiene iv) assessment of food security, habits, consumption and hygiene of food. Simultaneously, the monitoring of parasites in livestock, which was initiated as part of the transversal study, will be carried out at regular intervals in the same group of households in parallel to the other activities.
- Organise educational talks on malnutrition, food security and food safety, as well as on parasitic diseases.
- Laboratorial analysis on Taxonomic identification of grassland and calculation of biomass and dry matter.
- First evaluation of thesis work.
- Producing learning and training material on all areas of the Project, including the “Ecohealth” approach concept.