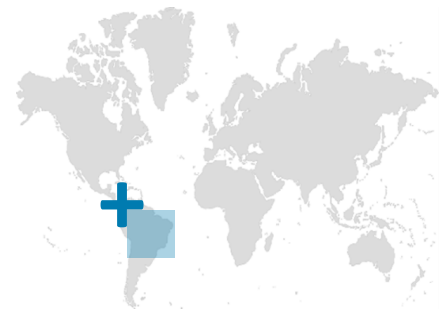


INFOCUS

Integrated Risk Management in Livestock Value Chains



SUBJECT

In Paraguay, the agricultural sector continues to be the most important economic sector, with high relevance for national economic growth. While traditionally, there has been a strong track record and concentration of public resources on cattle production, the rather non-traditional sectors of small animal husbandry have become an increasingly important source of income for vulnerable rural households.

Yet, the producers and other actors of the value chain face different risks: recurring inundations blocking access roads or the outbreak of animal diseases in production clusters can interrupt the value chain from functioning properly.

To strengthen the development and sustainability of non-traditional livestock production and protect the livelihoods of producers, it is necessary to assess these specific risks and identify ways to best manage and mitigate them. Yet, the lack of awareness

and access to information among various stakeholders in terms of risk management mechanisms is alarming.

In the project ProCadenas – Component 3, risk management activities are a central pillar which aims to overcome this information gap. Since 2018, ProCadenas-C3 has been working on strengthening the non-traditional livestock value chains of aquaculture, beekeeping, sheep and dairy production in Paraguay.

Project activities include the promotion of sustainable production practices, the integration within national and international markets, strengthening the dialogue between the public and private sector, and improving the existing risk management strategies, including insurance solutions. The project is implemented by GIZ together with the Paraguay Vice Ministry of Livestock VMG (*Viceministerio de Ganadería*), with financing from the European Union and the German Government.



Implementada por:



YVY HA TYMBA
NANGAREKO
Motenondécha
Ministerio de
AGRICULTURA
Y GANADERÍA



Paraguay
de la gente



Over the past years, the activities on integrated risk management have pursued three different objectives:

1. **Generate knowledge and awareness about risks and related impacts for the livestock value chain actors (producers, processing companies, vendors...);**
2. **Create tools which facilitate the assessment and management of risks by the VMG;**
3. **Build capacities among the value chain actors and the technical experts working for the VMG.**

CHALLENGES

Generating knowledge and awareness: Convey the value and benefits of risk management.

With respect to risk management projects, many of the actors within the value chain mainly think of climate risks. However, livestock producers do not perceive these risks as an urgent topic that they actively need to deal with, as they are not aware of the respective impacts on their livelihoods. In comparison, sanitary risks such as the loss of an animal due to illness, are directly recognizable as economic losses.

In addition, the prevailing attitude of many small-scale producers towards risks is rather observant and passive. Droughts, for example, are a regularly recurring phenomenon in many regions of Paraguay and the associated losses are understood as given. Potential mitigation strategies are not even thought about.

Applying the tools created: Comprehensive risk assessments for actors within the livestock value chain.

Several limitations were encountered when conducting value chain risk assessments, which were based on interviews and focus group discussions. First, the very limited availability of official statistical data posed a challenge. For instance, the most recent agricultural data comes from the last Paraguayan National Agricultural Census conducted in 2008, which is not perfectly suitable to represent the current state.

Second, interviews and discussions with groups of producers were abruptly interrupted by the onset of the Covid-19 pandemic and the subsequent standstill of activities. Consequently, not all previously planned activities could be conducted, which led to a decrease in the number of producers interviewed, number of departments visited, among others, and corresponding implications on the representativity and significance of the results.



Building capacities: Fostering relevant capacities on the individual and organizational level within the political partner institution.

The technical extension experts within the ministry are a key link for reaching the producers. Therefore, it is crucial to build their capacities and engagement in the topic of livestock risk management.

However, the ministry is confronted with a considerable lack of resources in terms of financial means, time and personnel, which is why it had not placed a high priority on risk management topics before. Furthermore, it complicated the availability of technical experts to accompany time-consuming activities.

SOLUTIONS

1. **Using a participatory process to define the initial conceptual framework.**

In order to include aspects of actual value for the day-to-day business of the producers, a participatory process was launched at the starting point of the project, to define how to approach the topic of risk management (so-called “conceptual framework”).

This process involved a broad variety of actors such as producers from each sector, technical experts from the ministry, representatives from processing companies and merchants, and other parties with interest in the topic of livestock risk management such as insurance representatives.

Participants jointly concluded three main areas of risks that the actors within the livestock value chains are exposed to: climate, sanitary and market risks. This integrated approach allowed to include the urging themes of floods, droughts, frosts, extreme heat, as well as illnesses, hygiene, and price fluctuations.

2. **Adapting the scope of analysis.**

Given the difficulty of accessing statistical data, the scope of the risk analysis needed to be adapted. Instead of collecting secondary data as a basis for creating the interview and focus group discussion tools, primary data was collected. It was then possible to tailor and develop the questionnaires for the interviews and the methodology for the focus group discussions around the so-called “risk quadrants”.

These quadrants depict the expected frequency of risk occurrence as well as the expected impact or damage caused by the risks, in addition to respective risk management strategies (i.e., risk retention, control, transfer, avoidance).



3. Adapting the mode of applying the tools.

Given the difficulties occurring due to the Covid-19 pandemic, that is, reaching fewer participants or even not being able to travel to certain locations in order to conduct the interviews or focus group discussions, the virtual modality of MS Teams was used to conduct online focus group discussions. This way, a certain representativeness of results could be maintained, even allowing people from very remote areas to bring in their viewpoints.

4. Creating a mandate for risk management among the political partner through a participatory approach in the development of easy-to-use and adaptable tools.

At the beginning of the project, the Department for Sustainable Livestock Production and Climate Change was identified as an entity with a genuine mandate for livestock risk management within the VMG. The technical experts from this department have been involved in all steps of the process towards developing and applying the risk assessment tools: starting from the design of the tools, the conduct and lead of interviews or focus group discussions, the analysis of the results and the finalization of the risk assessment reports.

Therefore, this analysis cannot be considered as an in-depth assessment, but rather as a qualitative insight into the matter. Nevertheless, it was still possible to generate relevant data that has been widely acknowledged and even used for further research and analysis by national actors.

3. Lack of comprehensive results due to the shift from in-person interviews and discussions to a virtual modality.

An advantageous alternative was adopted in the face of travel and assembly restrictions due to the Covid-19 pandemic. However, the interviews or focus group discussions held via MS Teams were found to be less comprehensive than in-person meetings.

Additionally, it was difficult to organize the meetings on short notice and to properly instruct the participants for effective execution. This left too little time to cover the questions or discussions on all relevant types of risks, so that the results obtained were incomplete and not as qualitative, in comparison to regular interviews and focus group discussions.

4. The participatory approach took more time but generated genuine interest, ownership and sustainability of livestock risk management activities among the political partner.

Easy-to-use tools were created to be integrated into the work of the technical experts from the ministry (i.e., guidelines for questionnaires and focus group discussions). A participatory approach was applied in order to integrate the partners at every step of the development. This required a substantial amount of time due to a higher necessity for reconciliation and alignments compared to simply developing the tools in collaboration with a consultant.

Nevertheless, this approach allowed for the generation of true interest in and ownership of the topic of risk management by the technical experts from the ministry. This allowed for further usage and adaptation of the tools in other value chains even after project finalization.

5. At project commencement, establish a sustainable plan to assess and provide a multi-disciplinary skillset.

The scope of this type of project requires a team with proficiency in technical development, journey design, and data analysis. This would enable the long-term project team to have an active role in the implementation and understand the technical solutions for a more sustainable model.

LESSONS LEARNED

1. A participatory process allowed to enrich the conceptual framework and contributed to a greater relevance of risk management.

A broad variety of perceptions and realities from different ends was achieved by involving as many actors with a mandate in livestock risk management as possible in the development of the conceptual framework. Furthermore, by including not only the producers as immediate actors from the value chain but also representatives from processing companies and merchants, the whole topic of livestock risk management received substantially greater relevance.

2. Difficulties in collecting primary data on a nation-wide scale required a certain degree of flexibility and adaptability.

The lack of up-to-date and representative quantitative data led to the necessity of adapting and changing the scope of the risk assessments. Given the limited time available for a comprehensive collection of quantitative data, the relevance of findings cannot be directly compared to what could have been in the ideal case with appropriate nation-wide secondary data.





OUTCOMES

1. By using a participatory approach, it was possible to increase the knowledge and awareness about risk management among the actors within the livestock value chains

Moreover, easy-to-use and dynamic tools for a comprehensive risk assessment have been developed. These tools have already been adjusted and applied by the ministry for the risk management of three other value chains, which demonstrates a great level of ownership and enhanced capacities to better support and consult in technical matters of risk management.

2. Conceptual framework

The conceptual framework for the integrated risk management in Paraguay's non-traditional livestock sectors provides information on the definitions of risk with respect to value chains, the definitions of different risk management strategies, the context of livestock risks in Paraguay, the elements of the proposed integrated livestock risk management approach, and the step-by-step proposal of the methodology.

3. comprehensive risk analyses and risk management plans

The comprehensive risk analyses and risk management plans for the four sectors of aquaculture, beekeeping, sheep and dairy include the management tool of risk quadrants that are used for assessing and analyzing the risks according to the damage faced by producers, that is, how frequently and how severely the risks affect them. Corresponding to the damage level faced, this tool indicates the respective paths of actions that affected producers are advised to take; whether they should seek to retain (low severity, low frequency), control (low severity, high frequency), transfer (high severity, low frequency), or avoid (high severity, high frequency) the risks identified.

Activity name

Integrated Risk Management in Livestock Value Chains

Focus area

Paraguay, South America

Target group

Actors of selected value chains of non-traditional livestock production (aquaculture, beekeeping, sheep and dairy), including producers, processing companies and merchants

Contact persons

Lorena Zapata (GIZ)

E lorena.zapata@giz.de, sv.fse@giz.de

This activity was part of the project...

Promotion of a Diversified and Sustainable Livestock Production (ProCadenas) - Component 3: Support for the Sector Roundtables and Actors within the Value Chains

Project duration

01.04.2018 - 31.03.2021

Photo credits

Photo 1 & 4: © Robin Dirks (external consultant GIZ)

Photo 2 & 3: © Victor Argüello / GIZ

Photo 5: © Lorena Zapata / GIZ

October 2021

DISCLAIMER

This publication has been prepared by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH in the frame of the project "Promotion of a Diversified and Sustainable Livestock Production – Component 3" funded by the European Union (EU) and the German Federal Ministry for Economic Cooperation and Development (BMZ).

