

# A shared diagnosis of the current situation of Galician dairy farming: a bottom-up approach



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## Introduction & Goals

During the last decades Galician dairy sector has experienced an important adjustment process, characterized by a sharp reduction in the number of dairy farms, an increase in farm dimension and the intensification of production systems (Sineiro et al., 2010). Despite this, the dairy sector has a great economic and social relevance in Galicia (Northwest of Spain), one of the top ten milk production regions in Europe (Eurostat, 2018).

The adoption of technological innovations, the improvements in productive process and the reduction of unit economic margin have encouraged intensive productions models (Andrade et al., 2020). Nowadays their sustainability is questioned, due to the high dependence on input markets and the negative environmental impacts (TEEB, 2011). Moreover, current European Union strategies (Farm to Fork and Biodiversity) are in favour of foster sustainable food production systems (European Commission, 2019).

In the current context, with a high volatility of markets, a changing rural policy and the recent abolishment of milk quotas, the objective of this work is to present the results of a shared diagnosis (SWOT analysis) of Galician dairy sector, done by representatives of actors of the entire value chain.

## Material and Methods

The methodology followed a bottom-up approach, organizing a Focus Group (FG) Dynamic as a part of a European Research Project (Dairy-4-Future; Interreg Atlantic Area Program EAPA\_304/2016). This FG took place in June 2019 with 13 actors representing the different components of the regional dairy chain (Table 1). It was structured into five segments (introduction; SWOT analysis; main issues; services/dysservices; innovative practices), with a total length of four hours plus a half-hour break.

The present contribution explores the results of the SWOT analysis and the identification of main issues in order to ensure the viability and sustainability of regional dairy sector. The SWOT analysis (55 minutes) was applied to the Galician dairy chain from the standpoint of sustainability, grouping considerations by theme (economic, social, environmental and agricultural issues). The SWOT was used to identify the main issues (20 minutes); these ideas were then pooled and classified by subject (economy, society, environment and agriculture). Then the participants voted the most important ideas (each participant voted three issues) (15 minutes).

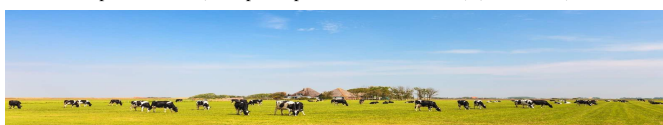
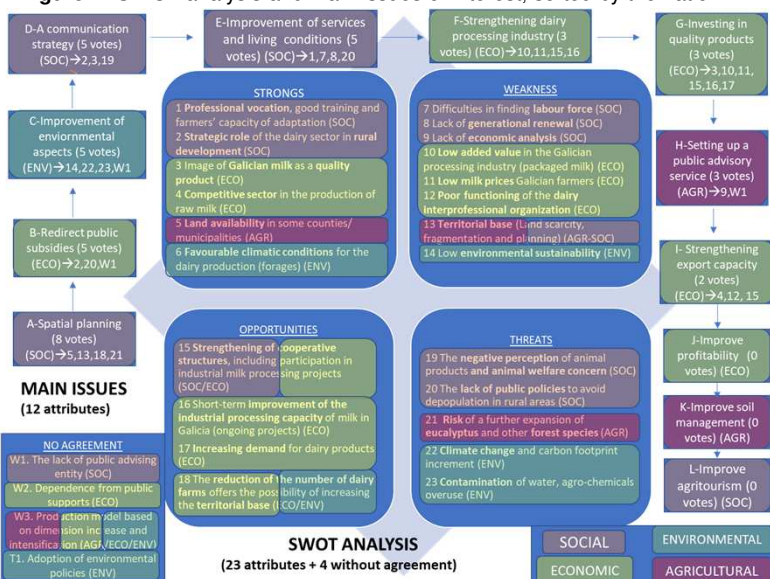


Table 1: Focus Group composition

Type of participants	Number of participants	Gender (No. of male)	Age (No. of ≤40 years)
Farmers	2	2	1
Technicians/technical support	3	2	2
Agri-food industry	1	1	0
Municipalities/local communities and administrations	1	0	0
Rural development group	1	1	0
Agricultural education centers Universities	2	1	0
NGOs	1	1	0
Cooperatives and farmers' organizations	2	2	1
<b>TOTAL</b>	<b>13</b>	<b>10</b>	<b>4</b>

Figure 1: SWOT analysis and main issues of interest, sorted by thematic



## Results

The SWOT analysis (Figure 1) let us to identify 23 attributes (4 more with no consensus), being the economic (9) and social ones (8) the most cited. In addition, negative elements (weaknesses and threats) (13 of 23) and internal elements (strengths and weaknesses) (14 of 23) were the most numerous. The lack of consensus in 4 attributes was linked to differences in expert's profile: more related with intensive or extensive production systems.

Moreover, participants were asked to identify the main important issues to the future. They identified 12 topics (5 economic, 4 social, 2 agricultural, 1 environmental), among which the economic aspects were the most cited (5). Nevertheless, the most voted was a social issue (8 votes): "Spatial and land use planning", linked with 4 SWOT attributes: the strength of land availability in some counties or municipalities (No. 5 in Figure 1); the weakness territorial base of farms (13: land scarcity, land fragmentation and lack of planning in land uses); the opportunity of increasing the area of the farms (18) due to the farm adjustment process; and the risk of further expansion of eucalyptus and other forest species, with the associated consequences of land immobilization, lesser land productivity and fire risk increase (21). Following issues were scored with 5 votes: redirect public subsidies, improve environmental aspects and improve services and living conditions. With the lowest importance three issues appear (without any vote): those specifically related with an increase in the profitability of land for milk production, improve soil management to avoid soil erosion and foster agritourism linked to dairy farms.

## Conclusion

Our study provides insight into the perception of actors of the regional dairy sector regarding strengths, weakness, opportunities, threats and the identification of the main issues. It constitutes the first step towards identifying practices and policies that will be useful in the design of a strategic plan to improve Galician dairy farming, and the whole dairy chain.

The results of the SWOT analysis show the relevance of the economic and social aspects for dairy actors. The weaknesses that should be reduced are the lack of economic and demographic viability of farms, the low environmental sustainability, and the deficiencies in the area of farms. On the other side, some opportunities related with processing industry (cooperative integration, product diversification), the increasing demand of dairy products and the use of wasted resources (land) must be considered.

The study has identified a range of sector's needs (main issues), that can be grouped in the following 5 main lines of action:

- Land use planning: stimulate land availability, increase the area of farms, improve technical conditions, optimize land use.
- Communication strategy: from the sector to society about agro-ecosystem services rendered by dairy farms (provision, environmental, cultural and rural vitality services).
- Improve the living conditions for population in rural areas and specifically for dairy farms workers.
- Provide a public advisory service for farmers.
- Improve dairy processing industry: enhancing the cooperative integration, increasing the production of higher value-added products as well as quality and local products.

## References

Andrade, D., Pasini, F., Scaranò, F. R. (2020). "Syntropy and innovation in agriculture". *Current Opinion in Environmental Sustainability*, 45:20-24.

European Commission (2019). COMMUNICATION FROM THE COMMISSION. The European Green Deal. COM(2019) 640 final <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52019DC0640&from=EN>.

Eurostat (2018). *Agriculture statistics at regional level. Cow's milk production*. [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Agriculture\\_statistics\\_at\\_regional\\_level&oldid=515105](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Agriculture_statistics_at_regional_level&oldid=515105)

Sineiro, F.; Santiso, J.; Calcedo, V.; Lorenzana, R. (2010). *El sector lácteo: escenarios de evolución*. Córdoba: COVAP.

TEEB (2011). *The economics of ecosystems and biodiversity for national and international policy makers*. London: Routledge.

