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**Title:**

An overview of the project "Animals in Territories for Agroecology: Contribution of Differentiation Approaches in Animal Production to Sustainable and Resilient Agri-food Systems" (AniTerrAE).

**Abstract:**

The main objective of the AniTerrAE project, funded by the Swiss Federal Office of Agriculture (FOAG) and started in 2022, is to pilot and adapt FAO's Tool for Agroecology Performance Evaluation (TAPE) to study the contribution of differentiation approaches on the sustainability of animal territorialized agri-food system. The project is based on case studies led in eight different countries (Argentina, Bhutan, Brazil, China, Kenya, Tanzania, Spain and Switzerland), four made under the leadership of FAO and four under the leadership of ODT. It aims at producing a cross-country analysis that will help draw recommendations to the institutions carrying out the differentiation process and to the local stakeholders and producers.

The project also plays a critical role in the improvement of the TAPE itself as it was adapted to the different contexts in a participatory manner including a pilot version adapted to the pastoral systems of Bhutan, Kenya and Switzerland. The results of this pilot will be used as a basis for a more consolidated version of TAPE inclusive of all production systems. AniTerrAE project involves local partners and academia to ensure results are integrated into national dialogues and scientific dissemination.

The differentiation approaches selected for the eight case studies were based on the existence of an "Origin-linked Quality Product" (OLP) in a certain geographic area. OLPs - also known as "products of terroir" - are distinguished from comparable products by their local identity and their typicity because of their tie to the terroir. The terroir constitutes the multiple interactions within a specific geographical area between local stakeholders and their environment over the course (FAO, 2012).

During this presentation, an overview of the eight case studies will be introduced and general remarks on TAPE implementations in Bhutan and Brazil will be discussed.

In Bhutan, the use of TAPE targeted two villages in eastern Bhutan, at the foothills of the Himalayas. The region is home to semi-nomadic yak herders who produce a specific fermented cheese called Zoedue (Wangchuk, 2022). The cheese is renowned for its

exclusive production in the region, characteristic qualities linked with the region's terroir and traditional transhumance traditions. In both regions, the assessed system scored well in all the elements of agroecology (CAET), indicating a robust implementation of agroecological principles. The case study highlights the economic dependence on the livestock-based system, with larger herds and pastureland positively correlating to agroecological performances. However, the pastoralists face many challenges with ever increasing restrictions regarding the right to state-owned pasturelands which constitute the main feed resources for yaks (Namgay et al., 2021). The rights to use them are inherited and those who did not inherit rights to enough pasture to cover their needs need to pay to those who inherited them (Wangdi & Norbu, 2018). The issues related to this leasing system sometime discourage producers from pursuing yak farming and thus producing this high-quality cheese.

TAPE implementation in Brazil aimed to analyze the relation between the agri-food system, the differentiation approaches, and the agroecological transition of Artisanal Serrano Cheese (ASC) producers in Santa Catarina state. ASC is an emblematic raw milk cheese in Brazil, not only for its organoleptic characteristics but also for the historical background behind its roots. ASC has been produced for two centuries, thus, there is more than one type of producer of Serrano Cheese, there is a multiplicity of producers. Each "queijeria" has its own reality, according to its local dynamics. Dynamics that enable -or not- its agroecological transition.

ASC shows cases how the particularity of the public policy context influences the transition to agroecology. The Brazilian legislation and policy background for artisanal raw milk cheese production is designed to maintain, allow, and -in many cases- limit its transition to agroecology. However, collective action is also a key factor in this transition, and ASC exemplifies the pivotal role that collective action can play. This raw milk cheese has a variety of differentiation approaches developed by organized ASC producers: Protected Geographic Indication (PGI) Campos de Cima da Serra, registration in the Cultural Heritage of Santa Catarina, a territorial brand "Sabor Serrano", and an identity and quality certificate "Selo Arte". However, access to these differentiation approaches is possible only after passing the Brazilian Food Safety Inspection Systems (SIM, SIE, SIF, SISBI). As a result, the vast majority of producers remain informal.

### **Bibliographic references ( max 10 )**

Arellano Pineda, A. P., Campos, G. Z., Pimentel-Filho, N. J., Franco, M., & Pinto, U. M. (2021). Brazilian Artisanal Cheeses: Diversity, Microbiological Safety, and Challenges for the Sector. *Frontiers in Microbiology*, 12. <https://doi.org/10.3389/fmicb.2021.666922>.

Cruz, F. T. Da, Menasche, R., Krone, E. E., Wagner, S. A. Queijo Artesanal Serrano dos Campos de Cima da Serra: o saber-fazer tradicional desafiando a qualidade. *Anais. IV Congresso de La Red SIAL*. Mar del Plata, Argentina. Outubro 2008.

Da Silva E Rocha, L., & Gomes Da Cruz, A. (2022). QUEIJOS ARTESANAIS BRASILEIROS: HISTÓRIA DO CONSUMO E ASPECTOS REGULATÓRIOS. *Alimentos: Ciência, Tecnologia E Meio Ambiente*, 3(1).

De Arruda Cordova, U., & Schlickmann, A. (2013). *Historia Catarina. Queijo Serrano, Identidade, Origines e Simbolismo: Vol. VII (50th ed.)*.

De Arruda Córdoba, U., & De Fátima De Meira Batista Ferreira Schlickmann, A. (2015). A CONTRIBUIÇÃO DO QUEIJO ARTESANAL SERRANO PARA O DESENVOLVIMENTO REGIONAL E PRESERVAÇÃO DOS CAMPOS DE ALTITUDE DO SUL DO BRASIL. *Cadernos De Prospecção*, 8(1), 150–157. <https://doi.org/10.9771/s.cprosp.2015.001.017>

FAO (2012). *Identification of origin-linked products and their potential for development: A methodology for participatory inventories*. Rome. <https://openknowledge.fao.org/handle/20.500.14283/bp117e>

FAO (2021). *TAPE - Outil pour l'évaluation des performances de l'agroécologie. Processus de développement et guide d'application. Version test*. Rome. <https://doi.org/10.4060/cb4706fr>

Namgay, K., Millar, J. E., & Black, R. S. (2021). The Future of Transhumants' Sustainable\* Resource Use in Bhutan: Pressures and Policies. *Frontiers in Sustainable Food Systems*, 5, 618351. <https://doi.org/10.3389/FSUFS.2021.618351/BIBTEX>

Wangchuk, D. (2022). The future of yak farming and herding culture in Bhutan: A case of the Brokpa herders of Merak and Sakteng. *Culture, Agriculture, Food and Environment*, 44(2), 110–119. <https://doi.org/10.1111/CUAG.12299>

Wangdi, S., & Norbu, N. (2018). Good fences are key to sustainable pasture management and harmonious pastoral society of Merak and Sakteng in Bhutan. *Pastoralism*, 8(1). <https://doi.org/10.1186/s13570-017-0106-0>