Food and Agriculture Organization of the United Nations

Small ruminant value chain analysis for **MONTENEGRO**

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1 INTRODUCTION

This brief report, based on an extensive study of small ruminant value chains in the Western Balkans,[1] focuses on Montenegro's small ruminant sector. It aims to identify challenges, opportunities, and actionable strategies to support small and medium enterprises involved in production, processing, and marketing activities. The small ruminant sector in Montenegro, while relatively small compared to other countries in the region, plays a crucial role in sustaining rural economies, preserving cultural traditions, and contributing to local food security.

Montenegro's small ruminant population decline since 2015, estimated at around 4.2 percent, reflects vulnerabilities arising from economic and structural challenges, as well as the increasing impacts of climate change. Despite these challenges, the sector remains resilient and continues to sustain livelihoods, particularly in mountainous and disadvantaged areas, where alternative income-generating activities are limited. It benefits from Montenegro's diverse climatic zones and rich biodiversity, which enable the production of high-quality niche products – such as artisanal cheeses and specialty meats – that can meet the growing consumer demand for sustainably and ethically produced foods.

The strategic importance of the small ruminant sector is further underscored by Montenegro's path toward European Union integration. Aligning with European Union regulations and standards on animal health, welfare, food safety, and environmental sustainability will be crucial for accessing the single market, capitalizing on external financial support, and remaining competitive. Moreover, Montenegro's unique geography and ecosystem offer opportunities to link small ruminant products to ecotourism and agrotourism initiatives, potentially enhancing rural development and income diversification.

Drawing from value chain analysis, stakeholder interviews, and surveys conducted with 121 small ruminant farmers in Montenegro, this report examines key bottlenecks and proposes targeted interventions. It emphasizes the need for financial support, capacity development, infrastructure development, and improvements in collective action to ensure that Montenegro's small ruminant sector remains vibrant, productive, and profitable in the long term.

[1] Please see https://www.fao.org/3/cc9178en/cc9178en.pdf

2 SECTOR OVERVIEW

This section provides an overview of the small ruminant sector in Montenegro, including production trends, consumption patterns, and trade dynamics. Though Montenegro has one of the smallest small ruminant populations in the Western Balkans, its sector exhibits distinctive characteristics that inform development priorities.

PRODUCTION TRENDS

Montenegro's sheep population has remained relatively stable at around 190 000 heads, and goat numbers have hovered around 29 000 over the past decade. While these figures are modest, their stability reflects a certain resilience within the sector. However, stability does not imply stagnation – farmers, stakeholders, and policymakers must address inefficiencies, input costs, and the limited availability of skilled labour. Montenegrin sheep meat production has remained steady at about 1 100 tonnes annually. Notably, Montenegro's yield of sheep meat per animal (approximately 39 kg/sheep) is higher than in many neighbouring countries, suggesting the presence of productive breeds or efficient management practices in some areas.

Data on small ruminant milk production in Montenegro is less detailed than for other Western Balkan countries. However, it is likely that Montenegrin producers face similar challenges to their counterparts – namely, improving milk yields, enhancing milk quality, and establishing stable relationships with processors or direct buyers. As the region sees an upward global trend in demand for small ruminant dairy products, Montenegrin farmers could benefit from upgrading their production practices, adopting milking technologies, and exploring niche dairy markets.

CONSUMPTION PATTERNS

Consumption of mutton and goat meat in Montenegro stands at about 2.38 kg/capita annually. This modest level of consumption, while not as high as in Albania, still indicates a culturally embedded preference for small ruminant products. Local culinary traditions, religious festivities, and tourism-driven gastronomy all shape domestic demand. Future growth in domestic consumption may hinge on marketing efforts, quality improvements, and ensuring consistent supply.

TRADE DYNAMICS

Montenegro's small ruminant trade is characterized by minimal import and export activities. While the country currently relies on some imports to meet domestic demand, opportunities to develop export markets for premium Montenegrin small ruminant products exist. Positioning unique cheeses, specialty lamb cuts, or other value-added products with distinct origin attributes, could help Montenegro penetrate high-value European Union and regional markets. Achieving this goal will require investments in food safety, product certification (such as geographical indications), and branding initiatives.

3 VALUE CHAIN ANALYSIS

The small ruminant value chain in Montenegro encompasses several key stages – farm-level production, intermediaries (traders, transporters), processing units (abattoirs, dairies), and retail outlets or food service establishments. Understanding the bottlenecks at each level is essential to designing effective interventions.

MAIN CHALLENGES FACED BY FARMERS

Montenegro's small ruminant farmers report challenges that are strikingly similar to their Serbian counterparts. Limited labour availability, compounded by a lack of interest among younger generations in continuing family farms, undermines the sector's long-term sustainability. Meat prices are often considered too low, eroding profit margins and discouraging reinvestment.

Other persistent issues include limited financial resources for farm-level investment, constrained access to credit, and occasional dissatisfaction with government policies or support measures. Climate-change impacts, such as reduced water availability in summer, exacerbate production risks. Farmers point to the need for technical support, improved infrastructure (for example water storage, irrigation for feed crops), and stable market channels.

MARKET CHANNELS FOR LIVE SMALL RUMINANTS

Montenegrin farmers primarily sell their small ruminants through abattoirs, a more formalized channel that ensures a degree of oversight and standardization. This reliance on abattoirs contrasts with the practice in Bosnia and Herzegovina, and Albania, where informal sales to end consumers or via village markets are more prevalent. By using abattoirs, Montenegrin farmers are better positioned to comply with food safety regulations and potentially achieve more stable pricing. However, to maintain and improve these benefits, investments in modernizing abattoirs, enforcing stringent hygiene standards, and building long-term relationships with processors will be essential.

MEAT PROCESSING AND MILK COLLECTION

In Montenegro, direct sales of slaughtered small ruminants to end consumers are common, like in Serbia. While this can yield higher prices, it raises concerns about consistent quality control and formal certification. Few farmers engage in on-farm processing, which limits opportunities for adding value through dried meats, specialty cuts, or branded products.

The small ruminant milk value chain is notably underdeveloped.

Unlike Albania or Serbia, where a meaningful share of farmers sells milk to processors, Montenegrin producers rarely do so. This gap represents a significant opportunity: by strengthening linkages with dairies, establishing price incentives for quality milk, and investing in on-farm cooling facilities, farmers could diversify their income streams and cater to rising demand for artisan cheeses and yogurt.

BOTTLENECKS AND OPPORTUNITIES

Key bottlenecks include:

- Insufficient formal contracts or agreements between farmers and buyers, leading to uncertainty in pricing and supply arrangements.
- High input costs, especially for imported feeds, coupled with limited mechanization in mountainous terrains.
- Environmental constraints, such as summer water shortages and pasture degradation, that limit productivity.
- Limited advisory services and technology transfer, especially for smallholders who lack economies of scale.

Opportunities include:

- Improving infrastructure in abattoirs and dairies to ensure safer products, better compliance with European Union standards, and the potential for higher farmgate prices.
- Encouraging cooperative arrangements among farmers to achieve scale economies in input purchases, marketing, and access to advisory services.
- Developing branding strategies that highlight Montenegrin small ruminant products' authenticity, origin, and environmental sustainability, potentially tapping into niche export markets.
- Strengthening extension services and training programmes focused on husbandry, breed improvement, animal health, and feed management to boost productivity and product quality.

4 FARM MANAGEMENT PRACTICES

Effective farm management practices are central to improving competitiveness and resilience. In Montenegro, certain strengths – such as widespread registration of animals and the relatively high use of advisory services – set a foundation for advancement.

FOOD SAFETY AND QUALITY STANDARDS

Montenegro stands out with 42.1 percent of farmers having used milk testing services in 2021, showing a commendable emphasis on quality control. This level of engagement is higher than in some neighbouring countries, indicating a willingness to adopt food safety standards and potentially move toward premium market segments. However, hand milking remains prevalent, and mixing morning and afternoon milk without proper cooling infrastructure may compromise product quality. Ensuring consistent access to potable water in milking areas and promoting basic hygiene protocols will be vital.

GENERAL FARM MANAGEMENT

Montenegrin farmers commonly maintain animal registries and carry out identification and registration, reflecting robust traceability systems. These practices are crucial as the sector moves toward European Union integration, where traceability and compliance with health standards are paramount.

Record-keeping and cost calculation practices, while not fully detailed, appear to be on the rise. Over 70 percent of Montenegrin farmers have used advisory services, suggesting that when expertise is available, farmers are receptive. This openness to knowledge transfer creates a conducive environment for introducing best practices in farm economics, feed optimization, and genetic selection.

BREED MANAGEMENT

Controlled mating and the strategic use of rams and bucks in herds are common practices in Montenegro. Such measures can gradually improve herd genetics, translating into higher meat yields, better milk composition, or improved animal health. For farmers not yet practising mating control, targeted training and success stories from progressive farms can highlight the benefits and encourage wider adoption.

ANIMAL HEALTH MANAGEMENT

Farmers rely significantly on private veterinary services, an indication of trust in professional support. Vaccination programmes are well established, and farmers appear knowledgeable about common diseases and preventive measures. Biosecurity awareness, such as using protective clothing when handling dead animals, is also present, further indicating a conscientious approach to animal health. Nonetheless, reducing animal losses due to diseases through preventive care, timely interventions, and improved housing conditions remains an area for improvement.

5 SUPPORT POLICIES AND INTERVENTION STRATEGIES

Montenegrin farmers demonstrate a higher-than-average willingness to invest in their small ruminant businesses. Approximately 62 percent plan future investments, primarily in expanding herd size, building new facilities, and improving feed production. This positive outlook is an asset that policymakers and development partners should capitalize on, offering tailored support measures.

ANALYSIS OF EXISTING SUPPORT POLICIES

Among Western Balkan countries, Montenegro provides various direct payment schemes and rural development measures. However, farmers express the strongest demand for direct payments per head of milking small ruminants, reflecting a preference for straightforward, predictable financial support. Such direct subsidies can help farmers cover operational costs, stabilize incomes, and mitigate seasonal volatility.

In addition to direct payments per head, Montenegrin farmers show interest in grants for investments and per hectare payments for animal feed areas. These preferences suggest that beyond immediate income support, farmers recognize the importance of strengthening production capacity, improving feed self-sufficiency, and enhancing infrastructure.

RECOMMENDED INTERVENTION STRATEGIES

1. **Strengthening direct payment schemes:** Aligning with farmer preferences, Montenegro could increase allocations for direct per head subsidies for milking small ruminants. Tying these subsidies to basic animal health, welfare, and record-keeping standards can encourage compliance and lay the groundwork for higher-level certifications.
2. **Infrastructure and technology investments:** Facilitating access to grants or low-interest loans for building new sheds, upgrading barns, and acquiring milking machines or cooling tanks can significantly boost productivity and quality. Public–private partnerships could help establish community-based processing centres or shared machinery parks, reducing investment costs for individual farmers.
3. **Feed efficiency and local production:** Given the high cost of imported feeds, interventions should prioritize improving local feed crop production and promoting silage making, hay production, and pasture rotation. Training in ration formulation and feed conservation can help farmers optimize animal nutrition, reduce costs, and increase productivity.
4. **Capacity development and knowledge transfer:** Extension services, vocational training programmes, and farmer field schools can disseminate best practices. Topics might include animal nutrition, genetic improvement, marketing strategies, and compliance with

European Union veterinary and quality standards. Strengthening advisory services and possibly accrediting private advisors can ensure farmers have year-round access to expertise.

5. **Market development and value chain enhancement:** Encouraging formal contracting between farmers, traders, and processors can reduce price volatility and build trust. Creating producer groups or cooperatives can help farmers achieve economies of scale, improve bargaining power, and jointly invest in branding and promotional activities. Supporting the development of geographical indications or quality labels for Montenegrin cheeses and lamb could open niche markets at home and abroad.

6. **Sustainable and environmental practices:** Interventions promoting better pasture management, soil conservation, and water harvesting systems can enhance resilience to climate change. Transitioning toward greener energy sources – such as solar panels for water pumps – and recycling animal waste as fertilizer, align with the European Union's Green Deal sustainability agenda. Such measures not only improve farm resilience but also bolster the sector's environmental credentials, which can be a strong selling point for conscientious consumers.

By blending financial incentives, infrastructure support, capacity development, and sustainable resource management, Montenegro can forge a forward-looking strategy for its small ruminant sector. Achieving European Union compliance and tapping into higher-value markets will require concerted efforts from government institutions, the private sector, civil society, and international development partners. With the right mix of interventions and policies, Montenegro can transform its small ruminant sector into a robust pillar of rural development, food security, and cultural heritage preservation.

6 CONCLUSION

The small ruminant sector in Montenegro, while modest in scale, remains instrumental in supporting rural livelihoods, preserving cultural traditions, and contributing to food security. Despite a relatively small decrease in livestock numbers, the sector continues to face enduring pressures related to limited funding opportunities, an aging farm population, and evolving climate risks, all of which hinder its long-term competitiveness.

By investing in modern processing facilities, strengthening collective approaches among producers, and improving coordination across the value chain, Montenegro can address many of the bottlenecks identified in this report. Equally important are measures that safeguard natural resources – such as improved pasture management and water harvesting systems – that reinforce resilience while meeting evolving environmental standards. Targeted support policies, including direct payments per head, grants for infrastructure upgrades, and robust advisory services, can further stimulate growth and innovation.

As Montenegro advances toward European Union integration, aligning with European Union regulations and leveraging potential funding sources will be vital to enhance product quality, expand into niche export markets, and ensure compliance with stricter food safety and animal welfare requirements. By following the recommendations outlined in this study – including investments in infrastructure, knowledge transfer, and marketing – Montenegro's small ruminant sector can emerge more resilient, profitable, and aligned with broader national development goals.

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