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Mini Review

Low Price of Fresh Milk and its Implications in Peruvian Family Farming

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Abstract

The dairy activity in Peru is being affected by the low prices in the purchase of fresh milk, discouraging the producers of family agriculture, which has forced them to take a position of social struggle and sell head of cattle to continue sustaining the family economy. This situation directly affects the main producing areas, located within the dairy basin of the departments of Cajamarca, Arequipa, and Lima, which represents 51.7% of the national production of fresh milk that is collected by three large dairy companies and formal and informal artisanal processors. The different purchase and sale channels have generated vulnerability in the price that small and medium producers receive today for fresh milk, which in the last ten years has been lower than international prices. Moreover, the industry is under a tax regulatory framework that has given it market advantages, generating disparity in terms of the benefits of Peruvian dairy producers in addition to the structural limitations that do not allow improving their performance. Therefore, it is expected and recommended that the Peruvian government fulfill a regulatory and articulating role within the system, generating policies, plans, workshops, among others, in order to improve the articulation and performance of the system for the benefit of families that call for state intervention to improve their living conditions and economic stability.

Introduction

Milk is a staple food of mass consumption for Peruvians. This product plays a vital role in the diet of children and populations with a high fat intake and limited access to other foods of animal origin [1]. Due to the high biological value of its proteins, fat content, minerals, and vitamins, milk is considered a complete food [2]. The production of fresh milk in Peru is concentrated in the departments of Cajamarca (18.4%, in the northern zone), Arequipa (16.8%, in the southern zone), and Lima (16.6%, in the central zone of Peru). The rest of the milk production (48.3%) is divided among 21 departments [3]. Therefore, Peru is considered as a country with great potential to be a regional leader in livestock activity. Likewise, agrarian policies consider the subsector as strategic for the growth of the gross value of agricultural production and the fight against poverty, fundamentally in the high Andean regions. However, it can be affirmed that the largest source of milk production in Peru comes from family farming, which does not have access to water and electricity, nor technical knowledge of the proper management of dairy cattle [4]. In Peru 53% of milk production is collected by the large dairy industry made up of the Gloria, Nestlé, and Laive companies, which have a market share of 59%, 29%, and 9% respectively. Likewise, they are characterized by having a wide network of collection points, cooling centers, and sales channels within the country. However, 47% of the remaining milk production is used for calf feeding, self-consumption, and the artisanal manufacture of dairy products [5]. The price paid to livestock producers for each kg of fresh milk varies significantly depending on the quality, volume, and distance from the collection centers to the processing plant [6]. Currently, Peruvian ranchers suffer the consequences of the increase in the prices of inputs used to feed livestock. The prices of soybeans and wheat have increased by 30%, generating an increase in the cost of milk production [7], which is not related to the prices received by producers, given that the large companies have monopolized the dairy industry. This endangers the sustainability of family farming because the production costs are higher than their income.

The Behaviour of the Dairy System in Peru

In order to understand the Peruvian reality in terms of milk production and the problems presented by the system, its contextualization is necessary. In 2019, 2.1 million MT of cow's milk were produced, showing an increase of 28.9% compared to 2009 [3]. This was due to the increase in both the number of milking cows and daily production yield (7.7 kg fresh milk/cow/day). Although the increase in milk production in the last ten years is evident, it is still insufficient to cover the domestic demand [8]. Geographically, 77% of milk production in Peru is produced by small and medium producers, with herds located mainly in the mountains of Peru [9]. Also, it has been identified that around 85.9% of Agricultural Units (AU) belong to small ranchers that have 1 to 9 head of cattle; 13.4% of AU are medium-sized producers that have from 10 to 49 head of cattle, and only 0.7% of large ranchers have more than 50 cows, with 39.4%, 37.6%, and 23% participation in the national milk production respectively. Dairy production in Peru only contributes to satisfying 69% of national/domestic consumption. So much so that the Peruvian dairy industry resorts to imports of powdered milk and other dairy inputs to cover the 31% deficit [10]. Among the dairy inputs that are imported are whole milk powder, skimmed milk powder, and anhydrous milk fat [11]. In Peru dairy production is characterized by its duality between formal industrial processors and artisanal processors, the latter being small production units that have a significant participation of informal companies [12]. On the one hand, the big industry is in charge of the industrialization of milk imposing prices and consumption patterns, on the other hand, there is an artisanal industry that is made up of small non-specialized producers who self-consume a part of their production and sell the rest through short circuits, mainly in informal markets after transforming it into a dairy product or in the form of raw milk [13]. This reflects that there are no limitations that restrict the internal/domestic market during the commercial exchange, where both occupy a similar position in the market [14].



The formal dairy business in Peru is characterized by being highly concentrated by only three industries, which supply more than 90% of the market with processed dairy products, while the remaining percentage is in the hands of formal artisan producers [15]. In recent years, a dominant position of the large dairy companies has been evidenced, because since 2007, according to Supreme Decree No. 158 - 2007-EF, which approves the modification of ad valorem CIF tariff rates for a group of national subheadings, establishes, in its article No. 02, the withdrawal of 0% tariffs on imports of all items of dairy products, allowing companies in the sector to import more powdered milk and other dairy inputs to reduce production costs, replacing fresh milk with cheaper inputs for the production of dairy products. This problem affects the producers, who since 2009 have continued to maintain an average sale price of 0.30 US\$/kg of fresh milk, well below the international price (EU: 0.46 US\$/kg, USA: 0.51 US\$/kg, NZ: 0.47 US\$/kg) [16].

The Problem of the Low Price of Fresh Milk in Peru

The price paid for milk by large industries to farmers depends on geographical conditions and the standardization of milk quality in total solids, density, presence of antibiotics, etc. Currently, the price paid by large industries to the producer ranges between 0.30 and 0.38 US\$/kg of fresh milk, while between 0.32 and 0.39 US\$/kg is paid by artisanal processors. However, Peruvian ranchers currently face an increase of more than 30% in the international prices of corn, wheat and soybeans, without any subsidy or protection policy by the state [17]. This price increase affects the cost of milk production, because these foods are used to feed the milking cows. Therefore, in many cases, farmers state that the prices at which they manage to sell milk do not cover all production costs; however, this information is difficult to support, due to the lack of information. The information gap on the part of the competent government entities is critical, since they do not have real information on the number of milk producers or those who abandon the activity, the type of technology they have, the type of feed given to the cattle, the production costs in the Coast mountains and jungle; the level of associativity as a generator of bargaining power and economy of scale. Likewise, there are no formal contracts between the producer and the large or medium-sized companies that allow for safeguards for both parties. This is a task that the state must assume to establish national policies for the benefit of family farming producers.

Risks in Family Farming

Family farming is the main driver of rural development in Peru [18], which represents 97% of all agricultural units. Likewise, more than 83% of agricultural workers work in family farming. Family farming is carried out in a dynamic interrelation with the social, economic, cultural, and environmental surroundings. The dairy is a complementary task to other productive activities of the family; it plays an important role in self-consumption and the manufacture of dairy products, offering the possibility of earning a significant income throughout the year, as long as a transaction cost perspective is adopted [19]. The composition of the livestock activity in Peru is based mainly on the small and medium ranchers of the Mountains (73% of the total producers), Coast (12%), and the Jungle (15%), being characterized by having Creole cattle (63.9%) in greater proportion, in addition to predominant breeds such as Brown Swiss (17.6%), Holstein (10.3%), and Zebu (3.4%) [9]. The vast majority of these producers do not have access to formal credit, are weakly organized, have limited business management and access to the market, and lack production and milking technology. All these limitations, added to climate change, high transportation costs, as well as limited access roads for milk collection [20], lead to a low level of competitiveness that affects the sustainability of family farming [21]. The Peruvian media have recently reported that some ranchers had to sell part of their head of cattle to sustain their family economy. Likewise, according to the latest report from the Association of Dairy Farmers of Peru (AGALEP), a national strike has been planned to express the current problem regarding the low prices paid for fresh milk in the last ten years.

Therefore, the articulated and decentralized intervention of the various government sectors and the various public and private institutions at the national, regional and local levels is recommended, through the implementation of policies, plans, technical roundtables, dialogue roundtables with the dairy chain players, in order to improve the development of the dairy activity in Peru, providing stability to small and medium farmers, as well as strengthening relations with milk collection companies. The Peruvian state is called upon to promote measurable and quantifiable actions that will allow determining the expected results, prioritizing budget allocations that will contribute to the achievement of strategic objectives, in order to improve Peru's dairy system/industry, with the main emphasis on family farming.

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