

# Price De-Capping of Milk and Meat in Punjab, Pakistan: Social and Economic Implications

*Muhammad Ahsan Waheed\**

\*Ex-Provincial Civil Service, Punjab, 113<sup>th</sup> NMC (ahsan2026@gmail.com)

## Introduction

The research should be considered as an introductory case study based upon review of selected literature, field observations and participant interviews to highlight the importance of de-capping of the prices of meat and milk in Pakistan and to discuss the implications of the decision for the livestock sector, food security and economy of Pakistan.

Livestock, a sub-sector of agriculture, provides us with meat and milk which are essential components of human diet. Human beings obtain 34 percent of protein and 18 percent of dietary energy from meat and milk.<sup>1</sup> Livestock sector has the potential to play a vital role in economic development, food security and rural socio-economic uplift of the country. It provides livelihood to over 8 million families in Pakistan. As of 2020, there are approximately 41.2 million buffaloes, 49.6 million cattle, 78.2 million goats and 30.9 million sheep in Pakistan.<sup>2</sup> Livestock farming contributes 60.6 percent in the Agriculture Sector's share in GDP and it alone contributes 11.7% to the GDP of Pakistan.<sup>3</sup> A major issue is high prices as despite the large number of animals, good quality meat and milk are not available in the market. In Pakistan, the provincial governments regulate the prices of meat and milk to keep them in reach. Most of the meat and milk in Pakistan is produced by smallholders in traditional production systems. Private investment in the sector is almost negligible. Inadequate investment is said to be due to price capping which makes it an unprofitable sector.

The study will begin with discussing the importance of enhancing productivity of the livestock, glancing through the history of price controls and their efficacy will be critically analyzed from the economic perspective. The next section will discuss the demand and supply of meat and milk in Pakistan and prices will be compared with

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<sup>1</sup> <http://www.fao.org/sustainability/news/detail/en/c/1272556/> (Accessed November 18, 2020).

<sup>2</sup> <https://www.dawn.com/news/1562879/no-change-in-population-of-camels-horses-and-mules> (Accessed December 1, 2020).

<sup>3</sup> [http://www.finance.gov.pk/survey/chapter\\_20/02\\_Agriculture.pdf](http://www.finance.gov.pk/survey/chapter_20/02_Agriculture.pdf) (Accessed December 1, 2020).

those in some developed countries to show that the prices are higher in Pakistan considering relative income levels. The deregulated poultry sector and its phenomenal growth will be used as an example to propose that government should de-cap the prices of meat and milk. It will be discussed that there are no deleterious social and economic implications of de-capping of prices.

It will be suggested that it will not only be beneficial for the livestock farmers and consumers but also for the economy as it will act as an incentive for private investment. After briefly describing the reasons why successive governments kept postponing the decision, the paper will suggest measures which have to be taken along with the decision to de-cap prices and conclude with some recommendations for the development of the sector.

## **Statement of the Problem**

Meat and milk are too expensive to afford for the common man in Pakistan. Prices of feed and inputs keep rising but the livestock farmers are unable to transfer the increase in cost of production to the consumers as government sets the prices of meat and milk, which are usually below the market equilibrium. The capping of prices is stated to be the major hindrance in the development of the livestock sector because price capping makes the sector unattractive for private investment. Moreover, good quality meat and milk are not available at government notified prices. But the government is ambivalent about the decision to de-cap prices fearing that it will have negative social and economic repercussions.

## **Background of the Problem**

A number of studies (Aujla, 2018; Chattha, 2013; Murphy, 2019; Sarwar, 2020; Pakistan Economic Survey 2018 & 2020) recommended that the development of livestock sector could be accelerated if government deregulated the sector and allowed market forces to determine prices of meat and milk. The dairy sector in Pakistan is not performing fully to its potential. Market forces can be used to give the required signals for distribution of resources to dairy and other challenging sub-sectors for increasing the supply of milk. Infrastructure improvement can also assist to increase the supply of milk along with market forces, (Chattha, 2013). As for as the availability of animals is concerned, Pakistan has a significant number of animals, reasonable number of meat processors and abattoirs, and exporters but the main bottleneck in increasing the prices of meat and milk is effective “Marketing and Supply Chain” (Sarwar, 2020).

When Mr. Hassan (the current secretary) assumed the charge of Secretary Livestock Punjab on 16<sup>th</sup> October, 2018, among other issues, the decision to de-cap<sup>4</sup> prices of meat and milk was being discussed. Livestock Development Policy 2007, which had been approved by the then Prime Minister of Pakistan, stated that the prices of meat and milk will be de-regulated.

During the participant interviews, it was revealed that on 21<sup>st</sup> of October, 2018, Ch. Javed Ahmad (Additional Secretary) informed the Secretary Livestock that in Prime Minister's task force on Agriculture and Livestock's meeting, it's decided that Secretary Livestock will present the proposals for the improvement of the sector and that these proposals were to be made part of the 100 days agenda of the new government which took office in August 2018. In a hurriedly called meeting, a few proposals were finalized which included de-capping of the prices as it appeared to be a very good opportunity to get something approved that had long been put forward as the panacea for all ills of the livestock sector.

**Organizational Background:** Livestock and Dairy Development Department Punjab is responsible for formulating policies for development of livestock sector. It is mandated to maintain livestock experimental farms, poultry farms and impart veterinary education and arrange training and research.<sup>5</sup> It is also the administrative department of two universities viz; University of Veterinary and Animal Sciences (UVAS) Lahore and Cholistan University of Veterinary and Animal Sciences (CUVAS) Bahawalpur. The department is supposed to work for productivity enhancement through breed improvement and maintenance of animal health. It has to arrange vaccines against various animal diseases. The department is also required to provide technical support to the private enterprises who want to invest in the livestock sector. The department has four attached departments and five autonomous bodies. It has two companies viz., Punjab Livestock and Dairy Development Board (PLDDB) and Punjab Agriculture and Meat Company (PAMCO).

The department has 21 Livestock Farms and has a large network of Veterinary Health Institutions including 575 Civil Veterinary Hospitals (CVH), 1845 Civil Veterinary Dispensaries (CVD), 212 Mobile Dispensaries, 132 Artificial Insemination Centers, 2 Semen Production Units, 41 Diagnostic Labs, 11 Poultry Farms and it has 2404 Veterinary Doctors, 7252 Para vets, 2212 Veterinary Staff, 7161 Non-technical staff and Class IV employees, a total of 19029 is the number of human resources.

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<sup>4</sup> De-capping of price means that the government discontinues fixing maximum sale price of any commodity.

<sup>5</sup> As per Rules of Business, 2011.

The Department is always under pressure to find ways and means of developing livestock sector to enhance production so that people can get milk and meat at affordable prices and experts are of the opinion that this is possible only through investment by private sector. It is also said that due to capping of prices, very little corporate farming is being done in Pakistan. To try and improve the sector, Livestock Department had moved a summary for the Chief Minister in 2016 requesting therein that prices of meat and milk may be de-capped but no decision had been taken on it.

## **The Story**

The summary for the Chief Minister containing the proposal for de-capping the prices had been re-submitted to CM Office on 5.10.2018. Moreover, as mentioned above, Livestock was also one of the sectors which had been included in the Prime Minister's 100 days agenda. Imposition of 100% import duty on whey powder, reduction in sales tax and different other duties on the import of livestock had been proposed for the improvement of the livestock sector.

While the Secretary was trying to convince the government to de-cap the prices of all livestock products, the Secretary knew that the market forces would bring price of chicken meat down but his argument that prices of meat and milk would gradually decrease if de-regulated, started looking untenable when the prices of poultry went up conspiring against his plans.

There was another meeting in CM Office Punjab on 15.12.2018 where cabinet committee was briefed by different departments about the targets fixed in the 100 days agenda. The matter of de-capping of prices was discussed thoroughly. Chief Secretary Punjab held a meeting on 27.12.2018 to review the progress so that the next tranche of the loan may not get delayed if targets could not be met. Looming large was the possibility of delay in the release of the loan tied to this deliverable due to non-implementation of a condition of an agreement signed between Government and the World Bank. The Secretary had to request for an extension in the deadline for de-capping of prices.

## **Significance and Scope of the Study**

Humans and animals compete for the same natural resources i.e., land, water and crops.<sup>6</sup> Pakistan would face an increasing threat of food shortages if the number of

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<sup>6</sup> <https://www.foodsource.org.uk/building-blocks/what-feed-food-competition> (Accessed November 18, 2020).

animals for production of milk and meat kept increasing instead of per animal productivity. Although exact demand for livestock products has not been calculated but when incomes increase, the demand for livestock products, being higher value foods, also increases (Aujla, 2018).<sup>7</sup> A proof of this phenomenon is that meat has already replaced pulses as the main source of protein with per capita meat consumption tripling from 11.7 kg in 2000 to 32 kg in 2016.<sup>8</sup> Similarly demand for milk is also likely to increase. That is why livestock production has to be enhanced.

Livestock population of Punjab is more than fifty percent of the livestock population of Pakistan so the effects of decisions in Punjab extend beyond the territorial limits of the province. Decision making by fragile democratic governments in developing countries also needs to be studied where some decisions are not made just because they are not deemed politically correct. However, this case study would mainly look at the most likely outcomes of the decision to de-cap prices and their social and economic implications for livestock sector, livestock farmers and consumers of livestock products and will they be beneficial or detrimental to the interests of these stakeholders.

## **Key Questions**

What are the possible social and economic implications of the decision to de-cap prices of milk and meat?

How will the possible outcomes of price de-caping milk and meat be detrimental to the interests of the livestock sector and consumers of its products?

## **Research Methodology**

The data was collected both from primary and secondary sources. Mixed methods research has been used and in addition to qualitative data, some quantitative data was also obtained and analyzed for triangulation. Grounded theory methodology applied and the livestock systems, environments and regulatory frameworks of purposefully selected countries viz. UK, USA, New Zealand and Australia were observed and their impact on the prices and availability of meat and milk and development of livestock sector in those countries were studied. Based on the policy environment in these countries, which led to the exponential increase in per animal productivity, a course of

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<sup>7</sup> <http://www.fao.org/tempref/docrep/fao/012/i0753e/i0753e.pdf> (Accessed November 29, 2020).

<sup>8</sup> <https://dailymirror.com.pk/230162/pakistan-daal-consumption-declines-sharply-as-meat-consumption-rises/> (Accessed December 1, 2020).

action was recommended and necessary measures were suggested to create a conducive environment for growth of the livestock sector in Pakistan.

## **Analysis of the Price Control and Its Impact on the Development of Livestock Sector**

### **Literature Review**

World Bank (2020) informs that price controls are being resorted to in developing countries even today whereas they have become a thing of the past in developed countries.<sup>9</sup> Kovacic (1995) maintains that what price controls try to do, can be better achieved by promoting and sustaining competitive markets (Kovacic, 2020). Murphy, Pierru and Smeers (2019) maintain that price controls create market distortions and they go on to assert that inefficiencies associated with price controls can be resolved by letting the market forces determine prices (Murphy, 2019). Morton (2001) asserts that policies of price controls lead to shortages and stagnation (Morton, 2001). Leffler (1982) has shown that quality of products is decreased if maximum prices are implemented (Leffler, 1982). Newfarmer and Pierola (2015) find that price ceilings discourage investment and entrepreneurial activity because of reduced, if any, profit margins (Newfarmer, 2015). Verme and Araar (2017) state that impact of price controls on price and availability of food products has not been studied extensively (Verme, 2017). This case study is an attempt to ascertain the impact of price controls and de-capping of prices on the livestock sector, producers and consumers of meat and milk.

**Contextualizing Price Controls:** The idea of price capping is not new to the human kind. As early as 4th century BC, after the failure of earlier price controls, the Roman emperor Diocletian fixed the maximum sale price of eatables and the violators were given death penalty. The measure resulted in shortage of provisions as the growers could not even recover the cost of production. He was forced to withdraw the price caps and it is said that due to resentment of the people that he earned, he had to lose his throne.<sup>10</sup>

Price control, due to failure of rice crop, imposed by East India Company in Bengal in 1770 is said to be responsible for the death of one third of its population during the

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<sup>9</sup> <http://documents1.worldbank.org/curated/en/735161586781898890/pdf/Price-Controls-Good-Intentions-Bad-Outcomes.pdf> (Accessed December 1, 2020).

<sup>10</sup> <https://www.heritage.org/environment/commentary/the-fully-price-controls#> (Accesses November 28, 2020).

famine. But the company learnt a lesson and when a century later, faced with similar situation, the company encouraged speculation and was able to avert famine.<sup>11</sup>

During American War of Independence, price control measures were introduced but were not successful (Grossman, 1973). Dr Schmidt states that price controls remained in place after World War II until 1946 but ‘attempt to control the prices of meat ended in utter futility, the end came in a total collapse’. President Truman while announcing the abolition of the price control measures said on November 9, 1946, ‘The law of supply and demand, operating in the market place, will, from now on, serve the people better than would [the] continued regulation of prices by the government.... continuance [of price controls] would do the nation’s economy more harm than good’.<sup>12</sup>

The more recent example is that of United States of America where President Richard Nixon ordered a freeze of prices on August 15, 1971 in an effort to control inflation. Price control did not work because the ‘ranchers stopped shipping their cattle to the market, farmers drowned their chickens’ and the consumers had to face shortages. Later, George Shultz US Secretary of the Treasury admitted that wage and price controls are not the answer for inflation.

Similarly, Irving S. Olds has observed as under:

The whole recorded history of man is strewn with the wreckage of the great civilizations which have crumbled under price controls; and in forty centuries of human experience, there has never been — so far as I can discover — a single case where such controls have stopped, or even curbed for long, the forces of inflation. On the contrary, in every instance this study finds, they have discouraged production, created shortages, and aggravated the very evils they were intended to cure.<sup>13</sup>

## **Section I**

Secretary Livestock was in favor of the proposal that prices should be de-capped in order to incentivize livestock farmers to efficiently produce milk and meat and be able to compete both in the local and global market. Pakistan has the 2<sup>nd</sup> largest buffalo population and 8<sup>th</sup> largest herd of cattle in the world but most of them are non-descript animals (Pakistan Economic Survey, 2018). Currently share of Pakistan in global halal food market is just 5% whereas it can play a bigger role in that market which is now

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<sup>11</sup> Ibid.

<sup>12</sup> <https://fee.org/articles/the-threat-of-wage-and-price-controls/> (Accessed November 28, 2020).

<sup>13</sup> <https://fee.org/articles/the-threat-of-wage-and-price-controls/> (Accessed November 28, 2020).

worth more than US\$ 3 trillion.<sup>14</sup> According to some estimates, Pakistan can earn over \$30 billion from export of dairy products.<sup>15</sup> This is quite possible because A2 milk produced by buffalos and cows in Pakistan is considered to be of higher quality.<sup>16</sup> But the government feared that price de-capping would result in excessive increase in prices and there might be a backlash from the general public especially urban dwellers.

## **1.1 Milk Demand and Supply**

Pakistan is the fourth largest producer of milk in the world<sup>17</sup> but still is a net importer of dairy products.<sup>18</sup> The total milk production has gone up from 42 million tons in 2007-08 to 61.690 million tons in 2019-20. This has happened due to an increase in the number of animals rather than per animal productivity.<sup>19</sup> The quantity of milk which becomes available for human consumption is 49.737 million tons and the rest either gets wasted or is fed to calves.<sup>20</sup> Pakistan is also fourth among the countries with highest levels of whole fresh milk consumption with 231 kg per person.<sup>21</sup> Despite availability of milk in the system, it does not reach the consumers unadulterated. As it is not profitable to sell milk at the government determined price so unscrupulous elements resort to adulteration. When the fixed price is lower than the market price, these elements sell reconstituted milk which contains low quality skimmed milk and whey powder. The non-availability of beta casein, milk protein, is stated to be one of the causes of stunted growth in children. The total loss to Pakistan's GDP due to stunted growth, wasted and underweight children is said to be \$7.6 billion annually which is 3% of our GDP. Hence there is a great need for providing an enabling environment for the livestock sector.

## **1.2 Meat Demand and Supply**

Pakistan's total meat production is 4708 thousand tons and share of beef in total production is 2303 thousand tons.<sup>22</sup> The exact demand of meat has not been calculated but the demand of beef has already surpassed its production (Aujla, 2018). This supply

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<sup>14</sup> <https://mettisglobal.news/pakistans-share-in-global-halal-trade-merely-0-25> (Accessed November 12, 2020).

<sup>15</sup> <https://dailytimes.com.pk/19634/pakistan-can-earn-over-30b-from-exports-of-dairy-products-milk/> (Accessed January 20, 2021).

<sup>16</sup> <https://www.abc.net.au/news/science/2018-06-19/dr-karl-a1-vs-a2-milk/9879800> (Accessed January 20, 2021).

<sup>17</sup> <https://www.indexbox.io/store/world-milk-market-report-analysis-and-forecast-to-2020/> (Accessed January 17, 2021).

<sup>18</sup> <http://www.fao.org/dairy-production-products/production/en/> (Accessed January 16, 2021).

<sup>19</sup> <http://www.fao.org/tempref/docrep/fao/012/i0753e/i0753e.pdf> (Accessed November 29, 2020).

<sup>20</sup> [http://www.finance.gov.pk/survey/chapter\\_20/02\\_Agriculture.pdf](http://www.finance.gov.pk/survey/chapter_20/02_Agriculture.pdf) (Accessed November 21, 2020).

<sup>21</sup> <https://www.globaltrademag.com/asias-milk-production-is-expected-to-increase-by-2-in-2020/> (Accessed 19 January 19, 2021).

<sup>22</sup> Production of mutton is 748 thousand tons and poultry is 1657 thousand tons as per Pakistan Economic Survey 2019-20.

and demand gap will further widen in future with the increase in per capita incomes. The cattle and buffalo animals available for beef production are 20.4 million units with per animal productivity of 120.8 kg per annum.<sup>23</sup> Meat production is considered a by-product of dairy industry in traditional livestock rearing systems which is an inefficient way of meat production (Randhawa, 2018). That is why meat of good quality is hardly ever available at the government determined prices. The livestock farmers in different parts of the world have developed beef breeds such as Angus, Hereford and Brahman etc. on the assumption that they will be able to earn extra money on the basis of the better quality of meat. The beef of these breeds is known for their juiciness, smell, tenderness, marbling and flavor.<sup>24</sup> Famous Kobe and Wagyu beef varieties could not have been developed if there was no possibility of selling ribeye and sirloin up to \$ 500/ kg.<sup>25</sup>

### 1.3 Minimum Wages and Prices of Meat and Milk in Different Countries

Absolute price of meat and milk cannot inform us about their affordability by the consumers. Price of beef is being used to explain the issue. A comparison of wages and prices in some countries will help us better understand the matter. Therefore, daily wage, based on the minimum per hour rates, has been calculated for Pakistan and four other countries as follows:

**Table 1: Comparison of Prices of Meat and Milk in Different Countries**

Name of Country	Min Wage per Hour (National Currency)	Daily Wage in US\$ (8 Hours)
USA	\$ 7.25 per hour <sup>26</sup>	\$ 58.00
UK	£ 8.72 per hour <sup>27</sup>	\$ 94.73
Australia	\$ 19.84 per hour <sup>28</sup>	\$ 158.72
New Zealand	\$ 18.90 per hour <sup>29</sup>	\$ 151.20
Pakistan	Not available <sup>30</sup>	\$ 03.58* <sup>31</sup>

<sup>23</sup> Ibid.

<sup>24</sup> [http://www.fao.org/ag/againfo/themes/en/meat/quality\\_meat.html](http://www.fao.org/ag/againfo/themes/en/meat/quality_meat.html) (Accessed January 19, 2021).

<sup>25</sup> <https://expertworldtravel.com/japans-finest-most-expensive-beef/> (Accessed December 11, 2020).

<sup>26</sup> <https://www.dol.gov/general/topic/wages/minimumwage> (Accessed December 26, 2020).

<sup>27</sup> <https://www.gov.uk/national-minimum-wage-rates> (Accessed December 26, 2020).

<sup>28</sup> <https://www.fairwork.gov.au/pay/minimum-wages> (Accessed December 26, 2020).

<sup>29</sup> <https://www.employment.govt.nz/#gref> (Accessed December 26, 2020).

<sup>30</sup> <https://paycheck.pk/salary/minimum-wages/168-punjab/1097-printing-and-publication> (Accessed December 26, 2020).

<sup>31</sup> As per hour wage is not available for Pakistan, monthly minimum wage has been used to calculate daily wage.

## 1.4 Price of Beef and Purchasing Power of Consumers

The following table shows the quantity of beef a person can buy with one day's wage and to facilitate comparisons, prices have been converted in US \$ and quantities in Kgs.

**Table 2: Purchase of Quantity of Beef per Person with Daily Wage**

Country	Price of Beef in National Currency <sup>32</sup>	Price in US \$	Purchasing Power with Daily Minimum Wage
USA	4.76 \$/kg <sup>33</sup>	4.76/kg	12.18 kg
UK	359.1pence/kg <sup>34</sup>	4.77/kg	19.44 kg
Australia	549 cents/kg <sup>35</sup>	4.00/kg	28.91 kg
New Zealand	6.90 \$/kg <sup>36</sup>	4.79/kg	21.91 kg
Pakistan	450 PKR/kg <sup>37</sup>	2.81/kg	01.28 kg

The above table shows the quantity of beef which a daily wage worker can buy with his one day's income. As can be seen, in US one can buy 12 kg, in UK 19 kg, in Australia 29 kg, in New Zealand 22 kg but in Pakistan one can purchase only 1.28 kg beef. This proves that beef is relatively expensive in Pakistan as compared with countries who do not regulate the prices.

## 1.5 Price of Milk and Purchasing Power of Consumers

The following table shows the quantity of milk a person can buy with his one day's wage in his country and to facilitate comparisons, the prices have been converted in US \$ and quantities in liters.

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<sup>32</sup> <https://www.statista.com/statistics/675826/average-prices-meat-beef-worldwide/#> (Accessed January 19, 2021).

<sup>33</sup> Ibid.

<sup>34</sup> <https://www.statista.com/statistics/297949/average-beef-farm-price-per-kg-in-the-united-kingdom-uk/> (Accessed January 19, 2021).

<sup>35</sup> <https://www.mla.com.au/prices-markets/> (Accessed December 28, 2020).

<sup>36</sup> <https://www.indexmundi.com/commodities/?commodity=beef&months=120&currency=nzd> (Accessed January 20, 2021).

<sup>37</sup> <https://www.urdupoint.com/daily-prices/2/beef-kg-prices-in-tehsil-lahore-city.html> (Accessed January 20, 2021).

**Table 3: Price of Milk and Purchasing Power**

Country	Price in National Currency	Price in US \$/litre	Purchasing Power with Daily Minimum Wage <sup>38</sup>
USA	3.51\$/ gallon <sup>39</sup>	\$ 0.92 / litre	63 litres
UK	28.72 pence/litre <sup>40</sup>	\$ 0.37/litre	242 litres
Australia	47.9 cents/litre <sup>41</sup>	\$ 0.35/litre	331 litres
New Zealand	2.21 \$/litre <sup>42</sup>	\$ 1.54/litre	68.41 litres
Pakistan	94 Rs/litre <sup>43</sup>	\$ 0.58/litre	6.12 litres

The above table shows the quantity of milk which a daily wage worker can buy with his one day's income. As can be seen, in US he can buy 63 litres, in UK 242 liters, in Australia 331 liters, in New Zealand 68.41 liters and in Pakistan he can buy only 6.2 liters of milk. This proves that milk is relatively expensive in Pakistan as compared with countries who do not regulate the prices.

It can be further argued that if the prices are being fixed for the benefit of urban consumers, they are not getting beef and milk at lower prices than the people in the countries discussed above. So why should there be any resentment when people would be made to understand that they are actually not getting meat and milk at lower prices.

The other relevant stakeholders are the livestock farmers. The fixing of prices is against their interest as they are not being allowed to sell their produce at the market rate. The financial status of the livestock farmers can be gauged from their herd size<sup>44</sup>.

**Table 4: Herd Size per Household**

Herd Size	% of Households
1-4	84
5-10	14
>10	2

<sup>38</sup> These are my calculations to make comparisons easier.

<sup>39</sup> <https://www.ams.usda.gov/sites/default/files/media/RetailMilkPrices2019.pdf> (Accessed December 28, 2020).

<sup>40</sup> <https://www.gov.uk/government/publications/historical-statistics-notice-on-uk-milk-prices-and-composition-of-milk-2020/> (Accessed December 28, 2020).

<sup>41</sup> <https://www.agriculture.gov.au/abares/research-topics/agricultural-outlook/dairy> (Accessed December 28, 2020).

<sup>42</sup> <https://www.expakistan.com/price/milk/auckland#> (Accessed December 28, 2020).

<sup>43</sup> <https://92newshd.tv/milk-price-fixed-rs-94-per-liter-karachi> (Accessed December 28, 2020).

<sup>44</sup> <http://www.fao.org/3/a-al750e.pdf>. (Accessed November 29, 2020).

It can be seen that 84% of the households have less than 4 animals while 14% have less than 10 animals. The structure of Pakistan's livestock sector is such that 94 % are in fact just subsistence farmers. Being an agriculture-based country, 63.09 % population<sup>45</sup> is living in rural areas and livestock plays a pivotal role in their lives. Sale of their produce at market prices can play a significant role in rural poverty alleviation. The upshot of the above discussion is that without benefiting the consumers, the producers are being deprived of what they rightfully deserve i.e., a reasonable profit on their produce.

## **1.6 Has Capping of Prices Resulted in Desired Results?**

The prices of Beef, mutton and Poultry have been increasing during the past 20 years.<sup>46</sup> A comparison of the prices of three livestock products as given in Economic Survey of Pakistan 2019, will make it clear whether capping of prices has paid the expected dividends. If prices of poultry, which are deregulated, experienced greater percentage increase then the policy of capping should be the preferred choice.

**Table 5: Price Comparison of Beef**

	<b>Price / kg</b>	<b>Percentage Increase</b>
<b>January 2001</b>	Rs 114.75	
<b>January 2019</b>	Rs 588.54	512%

*Source: Author's self-calculation*

**Table 6: Price Comparison of Mutton**

	<b>Price/kg</b>	<b>Percentage Increase</b>
<b>January 2001</b>	Rs 164.44	
<b>January 2018</b>	Rs 673.96	402%

*Source: Author's self-calculation*

**Table 7: Price Comparison of Poultry**

	<b>Price /kg</b>	<b>Percentage Increase</b>
<b>January 2001</b>	Rs 80.45	
<b>January 2019</b>	Rs 298.43	315%

*Source: Author's self-calculation*

<sup>45</sup> <https://tradingeconomics.com/pakistan/rural-population-percent-of-total-population-wb-data.html#>. (Accessed November 29, 2020).

<sup>46</sup> [http://www.finance.gov.pk/survey\\_1920.html](http://www.finance.gov.pk/survey_1920.html). (Accessed January 19, 2021).

There is significantly less increase in prices of poultry than the increase in prices of beef and mutton. During the period under review the prices of beef and mutton experienced 512% and 402% increase respectively and the prices of both of these items were being regulated under Price Control and Prevention of Profiteering and Hoarding Act 1977 but the only item of livestock whose price had not been capped, witnessed an increase of just 315%. It means that capping of prices has not paid the desired dividends. If prices of meat and milk are de-capped and corporate farming is allowed to flourish, it will enhance production and will prove beneficial both for the producers and consumers. It can be inferred that de-capping will not have any harmful economic and social implications.

### **1.7 Price Controls through the Lens of Economists:**

Government invokes the provisions of Price Control & Prevention of Profiteering and Hoarding Act 1977 to set the maximum sale price of meat in order to make them affordable for urban dwellers. This maximum sale price is capped at a level which is always lower than the market equilibrium price which is inimical to the interests of both the consumers and the producers as it reduces the amount of trade in the economy. Price controls are a disincentive for new entrants and discourage investment. This is exactly stated to be the reason for less-than-optimal performance of the livestock sector in Pakistan.

## **Section 2**

### **2. Why Poultry Sector Not Being Emulated**

#### **2.1 Poultry Farming in Pakistan**

The example of deregulated Poultry Sector is being used to prove that most efficient allocation of resources is achieved automatically by market forces. Rapid growth during the last a few decades has made it the second largest industry of the country (Pakistan Economic Survey, 2018). Pakistan has also become the 11<sup>th</sup> largest poultry producer in the world with the production of 1.163 billion broilers annually (Pakistan Economic Survey, 2020). In 1971, the market share of beef was 61%, mutton 37%, and poultry meat a mere 2-2.5%.<sup>47</sup> Realizing the importance of poultry sector as an important part of the food industry in 1960s, government gave it some partial or total exemptions in sales and income tax as well in import duties which enabled it grow at a

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<sup>47</sup> <http://www.riazhaq.com/2016/06/is-chicken-really-more-affordable-than.html> (Accessed November 22, 2020).

fast pace (Sadiq, 2004). As a result, commercial poultry farming sector, with investment of more than Rs 700 billion, is one of the largest agro based segments of Pakistan and it is growing at the rate of 8% annually. Being the cheapest source of animal protein, it is bridging the gap between the supply and demand of meat protein. Poultry industry provides employment to more than 1.5 million people in about 25000 Poultry Farms. Total production of chicken meat is 1657 thousand tons which is 40% of the total meat consumption.<sup>48</sup> And poultry is playing a significant role in poverty alleviation by improving rural economy.

## **2.2 Reasons for the Growth of Poultry Sector**

Government provided enabling environment to the poultry industry by mandating Livestock Department in 1975 to lead poultry development activities with the vision “To support poultry development in a policy environment through public investment and inducing private capital initiatives in the sector for poverty alleviation, food security and generation of exportable surpluses”. Punjab Province contributes almost 73% of poultry farming investment in the country. The Directorate of Poultry Research Institute of Livestock & Dairy Development Department contributes through introduction of better husbandry practices, control of poultry diseases through effective surveillance and control measures and improved extension services.

Example of Poultry Sector should be kept in view which has flourished because of enabling environment provided by the government. In addition to other things, prices were not capped which encouraged private capital and that is stated to be the reason for phenomenal growth of the sector.

## **Section 3**

### **3. Enabling Environment and Future Prospects**

#### **3.1 Enabling Environment for the Meat and Dairy Sector of Livestock**

Instead of capping the prices, the government may help the livestock sector by facilitating the import of high yielding dairy and beef breeds, semen and embryo to reduce the number of non-descript animals. Adequate funds may be provided by government for R&D so that high yielding dairy and beef breeds can be developed

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<sup>48</sup> In addition to this, backyard poultry also makes a significant contribution, with a figure of 89.84 million during 2019-20.

through progeny testing and cross breeding. High yielding Holstein Friesian cattle and Italian Mediterranean buffalo have been developed through cross breeding and progeny testing respectively. Moreover, government may train and help people in setting up value addition industry for example cheese making industry etc.

### **3.2 Prospects of Livestock Production if Enabling Environment Provided**

The advantages of providing an enabling environment can be explained by using the example of the dairy sectors of leaders in the industry. In the past, governments in some of these countries used to fix minimum sale price to protect the farmers but that practice has long been abandoned. In New Zealand where prices have not been fixed and efforts are made through breed improvement and research and development to increase per animal productivity, an average dairy cow produced 4,259 liters of milk in the 2016-17.<sup>49</sup> Same is the case with Australia where the average dairy cow produced 6169 liters in 2018-19 which increased from 2900 liters in 1980.<sup>50</sup> In UK the average milk yield per cow per year for the milk years 2002/03 was 6450 liters which increased to 7,968 liters per cow per year in 2018/19.<sup>51</sup> In US the average milk yield per cow per year has reached 7,968 liters in 2018/19.<sup>52</sup> It means that competitive environment can bring in efficiencies in production systems. Whereas in Pakistan the average milk yields have been estimated at 2000 liters per lactation with 5% fat.<sup>53</sup> If productivity of animals increases to the level of above-mentioned countries, Pakistan can have huge exportable surpluses.

When production increases, supply of meat and milk will increase and their prices will fall but as the total production increases, total income of livestock farmers will also increase. If this happens, producers and consumers both will benefit and the economy of Pakistan will grow.

### **3.3 The Desirable State for Pakistan's Livestock Sector**

While a layman would think that increase in number of animals is a sign of growth of livestock sector, in fact, it is per animal productivity which should improve. Example of USA would amply illustrate this point. In 1944, there were 25.6 million cows and

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<sup>49</sup> <https://www.lic.co.nz/news/more-milk-cow-fewer-cows-latest-dairy-stats/#> (Accessed November 29, 2020).

<sup>50</sup> <https://www.dairyaustralia.com.au/industry-statistics/milk-processing-overview/milk/yield#> (Accessed November 30, 2020).

<sup>51</sup> <https://www.statista.com/statistics/298759/average-milk-yield-in-the-united-kingdom-uk/> (Accessed November 30, 2020).

<sup>52</sup> <https://dairy-cattle.extension.org/how-much-milk-does-the-average-dairy-cow-produce-in-a-year/> (Accessed November 30, 2020).

<sup>53</sup> <http://www.fao.org/3/t1265e/t1270e03.htm#> (Accessed November 30, 2020).

now it has only 9.2 million cows<sup>54</sup> but the quantity produced per cow per year was 548 gallons then which is now 2429 gallons as the proportion of Holstein Friesian, a high milk cow, has gone up from 39% in 1944 to 90%. Capper et al. state, “Modern dairy practices require considerably fewer resources than dairying in 1944, because now 21% of animals, 23% of feedstuffs, 35% of the water, and only 10% of the land is required to produce the same 1 billion kg of milk” (Capper, 2009). The use of modern technologies such as In Vitro Fertilization (IVF) can quicken the pace of breed improvement tremendously.

### **3.4 What has Not Been Done for the Livestock Sector?**

Unfortunately, due to lack of research and development animal breeds of Pakistan have not been able to keep pace with the best dairy animals of the world. The genetic potential of the Nili-Ravi buffalo is stated to be comparable with the best dairy breeds. Sahiwal and Cholistani breeds of cattle are considered excellent for milk production. Similarly, Pakistan has not developed any beef breed despite the fact that all its cattle have the potential to be used as beef breeds. Lack of knowledge about good breeding practices, malnourishment, and fragmented livestock holdings, as 94 percent of animals are reared by small holders, are also some of the causes of its poor performance. Another issue is the non-existence of market-linkages both within Pakistan and abroad as Pakistan cannot export livestock products unless it complies with the provisions of Terrestrial Animal Health Code<sup>55</sup> of Office international des epizooties (OIE)<sup>56</sup> regarding Trans-boundary diseases Foot & Mouth Disease (FMD), Peste des petits ruminants (PPR) and bird flu etc. The whole country cannot be made disease free immediately but the irony is that even disease free zones or compartments have not been developed so far.<sup>57</sup> Moreover, due to price caps, investors see no point in establishing corporate farms which are efficient production systems. Subsistence farmers produce which is just enough for their own consumption as it is not profitable to sell livestock products at government fixed prices.

### **3.5 Vicious Circle of Low Productivity, Low Prices and Lower Incomes**

Besides genetic potential, one of the reasons for low animal productivity is the inadequate quality and quantity of feed given to animals. For high milk production dairy cow has to be given a diet that contains carbohydrates, amino acids, fatty acids,

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<sup>54</sup> <https://www.dairymoos.com/how-much-milk-do-cows-give/> (Accessed November 30, 2020).

<sup>55</sup> <https://www.oie.int/doc/ged/D10905.PDF> (Accessed January 19, 2021).

<sup>56</sup> World Organization for Animal Health.

<sup>57</sup> [https://www.oie.int/fileadmin/Home/eng/Health\\_standards/tahc/2016/en\\_chapitre\\_zoning\\_compartment.htm](https://www.oie.int/fileadmin/Home/eng/Health_standards/tahc/2016/en_chapitre_zoning_compartment.htm) (Accessed January 20, 2021).

minerals and vitamins.<sup>58</sup> To produce one liter milk a cow requires up to 3 liters of water.<sup>59</sup> The increase in human population and the resultant increase in the demand of animal products warrants that per animal productivity be increased. The small holders feed their animals on low quality roughages, straws, sugarcane by products. These materials contain low quantities of protein, energy, minerals and vitamins. The farmer needs to add foliage from tree leaves or seed meals, or for ruminants' urea in the form of urea-molasses multi-nutrient blocks,<sup>60</sup> which can improve the utilization of low-quality roughages but due to monetary constraints, they cannot do it. The farmers cannot earn enough from the sale of milk or meat to afford conventional vaccine to control bacterial or viral diseases which reduce productivity. Moreover, productivity is greatly reduced by parasite infections and for purchasing medicines farmers require money.<sup>61</sup> The result is lesser milk production and lower income for the farmer. For adulterated milk, the consumer apparently pays less but suffers due to poor quality of the product. Similarly, non-development of beef breeds is the cause of high prices of low quality beef in the market. In the traditional production systems, the livestock farmers spend more time, energy and money to produce lesser quantity of beef as compared with the market leaders in the industry. Lower production, lower prices, lower income and lower investment perpetuates the vicious circle in the livestock sector.

Livestock production can be improved if livestock farmers get their due share of agriculture credit at lower interest rates. State Bank has to ensure that commercial banks must reserve a certain percentage of agriculture loans for livestock subsector. Loans for corporate farming will benefit the whole sector. In addition, State bank has to design special instruments to facilitate the subsistence farmers who may not have documents of landed property for submission as collateral.

**Complexity of the Issue: Why was the decision of de-capping not taken?** De-capping of the prices was being proposed based on the assumption that due to the rational decisions of individuals in a de-regulated livestock sector, the market will 'self-organize into a state which [will have] satisfactory welfare properties. It was thought that the probability of the production systems for both meat and milk becoming more efficient was very high.<sup>62</sup> But the economy is a complex adaptive system and there is a possibility of 'unforeseen consequences' which cannot be predicted with

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<sup>58</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7153313/#> (Accessed December 1, 2020).

<sup>59</sup> <https://edition.cnn.com/2013/12/18/world/meast/milking-the-desert-saudi-dairy-farms/index.html> (Accessed December 1, 2020).

<sup>60</sup> [https://www-pub.iaea.org/MTCD/Publications/PDF/te\\_1495\\_web.pdf](https://www-pub.iaea.org/MTCD/Publications/PDF/te_1495_web.pdf) (Accessed November 30, 2020).

<sup>61</sup> Ibid.

<sup>62</sup> [https://www.oecd.org/naec/complexity\\_and\\_policymaking.pdf](https://www.oecd.org/naec/complexity_and_policymaking.pdf), 36 (Accessed November 29, 2020).

certainty.<sup>63</sup> Keeping this in view, it could not be guaranteed that production will definitely increase and price would certainly come down.

Even otherwise decision making in government is a complex phenomenon where different determinants at the political and administrative levels influence the final decision.<sup>64</sup> Moreover, the complexity of human behavior makes things difficult because when different interest groups interact in complicated ways their decisions may be quite different from the ones might have been predicted.<sup>65</sup> The science of complexity can better explain how people behave when they act in 'economic and socio-political systems'.<sup>66</sup> We wish that decision to de-cap the prices would have been taken by now but the unpredictability of the outcomes and possible repercussions did not allow that to happen.

### **3.6 Epilogue**

The final report was submitted by UVAS on 15.6.2019. It recommended, based on surveys and focus group discussions, that the government should immediately de-cap the prices of meat and milk through a notification and delist them from the essential commodities list because of which the price capping policy was applicable to these products. The report further recommended that government should allow free market system to determine the prices. It however opined that after de-capping, the prices of meat and milk will rise for some time so the government should devise a robust mechanism to avert this artificial price hike to avoid public unrest. Later the department was asked to resubmit the summary containing the opinion of a panel of economists and social science experts.<sup>67</sup> In the meantime, the Secretary was transferred on 19.6.2019.

## **4. Conclusion**

Social and economic benefits of a de-regulated livestock sector, as observed in the purposively chosen sample of market leaders in livestock industry, support the proposal that government should de-cap the prices of meat and milk.

De-capping of prices of meat and milk is necessary for the development of livestock sector. Government regulations and absence of an enabling environment is the main

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<sup>63</sup> Ibid, 37.

<sup>64</sup> <https://www.tbs-sct.gc.ca/cee/tools-outils/aucoin-eng.asp> (Accessed November 19, 2020).

<sup>65</sup> [https://www.oecd.org/naec/complexity\\_and\\_policymaking.pdf](https://www.oecd.org/naec/complexity_and_policymaking.pdf), 4 (Accessed November 29, 2020).

<sup>66</sup> Ibid, 4.

<sup>67</sup> The decision has not been taken till today.

cause of less than optimal production of meat and milk. Lesser supply always results in price increase.

Prices of both meat and milk are higher in Pakistan than those in countries with developed livestock sectors considering the relative income levels of consumers. Price control measures can check price hike only for a short period. In the long run, commodities are always be sold at the market price. Price controls are known to create shortages and black markets where the same commodity is sold at the market price.

Prices can be better controlled by augmenting the supply and adopting policies to help livestock farmers enhance production. The consumers can be better served by providing them with good quality milk and meat at market price. By selling their produce at market price, rural livestock farmers will be able to recover their costs and earn a reasonable profit. This profit motive will encourage them to adopt modern techniques of animal husbandry which will increase per animal unit productivity.

Deregulation will attract investment in dairy and meat sector which will increase production to meet local demand and produce exportable surpluses. Poultry sector's phenomenal growth over the past a few decades has indicated that if enabling environment is provided, other sub-sectors of the livestock can match the performance of poultry industry.

Temporary increase in prices of meat and milk after de-capping will be ephemeral. Both milk and meat being perishable commodities cannot be stored for long periods of time so they cannot be hoarded for earning supernormal profits.

The study conducted by USAID establishes the fact that if the decision to de-cap prices of meat and milk is made, it will not have any detrimental implications for the consumers and will have salutary effect on the growth and development of the livestock sector. It is apparent that the decision was not made due to unfounded fears of resentment of urban consumers and also because it was not deemed politically correct.

## **5. Recommendations**

- Prices can be de-capped by augmenting the supply and adopting policies to help livestock farmers enhance production. So, Government should give subsidy to this sector to increase the production.

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- Prices of meat and milk may be de-capped to let market forces determine the price and the quantity which will be produced at that price.
- The import duty on whey powder and skimmed milk may be further enhanced to check sale of reconstituted milk which is used as a substitute for milk and poor farmers do not get a fair price for their produce. This measure will be helpful in checking adulteration and promoting livestock development.
- For R&D, sufficient funds must be earmarked so that improvement and development of dairy and beef breeds can be undertaken. The use of modern technology such as IVF may be encouraged to quicken the pace of improvement of genetic potential of animals.
- A targeted direct cash transfer scheme aimed at helping the vulnerable poor people of urban areas may be planned to enable them brace the temporary increase in prices after de-capping but without creating distortions in the market.
- To encourage corporate farming, it should be made mandatory for banks to disburse adequate percentage of loans at lower interest rates to livestock sector out of the loan portfolio meant for agriculture.
- In order to increase exports of livestock products, government must at least establish disease free zones and compartments immediately as per provisions of the OIE's Terrestrial Animal Health Code.

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Dr. Abdul Karim Bhatti, Director, Big Bird Group of Companies, Ex-Chairman Pakistan Poultry Association North Zone.

Dr. Muhammad Afzal, *TI*, FMD Management Specialist FAO-Pakistan, Islamabad.

Prof. Talat Naseer Pasha, Former Vice Chancellor, University of Veterinary and Animal Sciences, Lahore.