

Dairy Industry of Pakistan

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Abstract

The livestock sector alone contributes 11% of Pakistan's GDP, with an estimated 42 billion litres of milk produced per annum. Economic Survey of Pakistan 2009 assertions that Pakistan has a herd size of around 63 million animals – the 3rd largest in the world. After witnessing all the issues regarding the dairy industry of Pakistan, it can be concluded that the dairy industry possesses potential of growth and is very important from economic perspective. The major problem with dairy farming in Pakistan is the low milk yields of Pakistani cattle and buffaloes. This low production potential of Pakistani animals is mainly attributable to a few clearly identifiable issues such as lack of a systematic national breed improvement program, lack of availability of good quality fodder and nutrients and poor farm management practices. On average a dairy animal in Pakistan yields 6-8 times less milk than a dairy animal of the developed world. So Pakistan needs to have a coordinated and integrated strategy/approach beginning from enhancing per animal productivity, going straight to milk procedures/procurement and minimize the wastage.

Keywords: Dairy Industry, Pakistan, Milk, Productivity, per animal productivity, livestock, farm management practices

1. Introduction:

Agriculture is one of the most important sectors of the Pakistani Economy, contributing 21% to Pakistan's GDP and employing 45% of its labour force. Moreover, the single most important subsector of agriculture is livestock; including cows, buffalos and goats which provide milk, meat, hides and other raw materials for the local market. The livestock sector alone contributes 11% of the country's GDP, with an estimated 42 billion litres of milk produced per annum (Jassar Farms, 2009).

As per the Economic Survey of Pakistan 2009, Pakistan has a herd size of around 63 million animals, which is the 3rd largest in the world. About 35 million people are involved in dairy farming, deriving more than 40% of their total income from livestock. For these farmers, dairy animals provide milk for domestic consumption as well as meager income through the sale of milk. In rural Pakistani culture livestock is a storer of wealth. It is viewed as important social capital and offers insurance to the owner in times of financial distress (Jassar Farms, 2009).

Pakistan is an agrarian country in which the livestock is the largest subsector contributing to a total of 55.1 percent to agriculture includes buffalos, goats and cows which provide milk, hides and other raw material (SMEDA, 2005).

Dairy is a major part of food consumption and it plays an important role in Pakistani diet in the form of milk, meat and egg. Milk is classified as the major dairy product due to its long-lasting benefits i.e. bone health, lower the risk of cardiovascular and blood pressure diseases, effective against obesity, type 2 diabetics, cancer and dehydration

(Dairy council, n.d.).

2. Literature Review:

2.1 Issues regarding dairy industry

Pakistan is the 5th largest producer of milk in the world, its industry volume of dairy products reached at US\$26 billion in rural and urban areas on the increasing population and domestic local consumption however the total milk production is not fulfilling domestic human needs (Ameen, 2012).

In only Karachi the daily shortage has been reported at approximately four million litres. It is anticipated that the demand and supply gap is going to be 3.6 billion litres by 2015 (Ishtiaq, 2010). The most significant reason for this gap is that the milk production is not increasing at the rate of 3% annually at which the per capita consumption and human population is increasing (Government of Pakistan, 2008-09).

The production of milk is increased over the past years, this increase is not concerned with the productivity per animal but is due to an increase in total number of animals. Some of the other reasons that decrease the productivity include: lack of genetic resources, delay in attaining puberty, shortage of optimal feed, high disease incidence, lack of an organized marketing system for livestock, insufficient facility for research, shortage of veterinarians, lesser infrastructure facility in rural area and the maintenance of traditional farming practices (Ahmed *et al*, 2012).

The other main reason of the shortage was the flood that hit Pakistan in 2010, the total livestock (large & small animals) and poultry losses accounted 0.3 percent and 1.6 percent, respectively of the total population (Government of Pakistan, 2010-11).

As mentioned in the Economic Survey of Pakistan 2009, Pakistan is having approx 63 million animals which is 3rd largest herd size in the world, but due to lack of genetic resources and other factors, the major problem for small holding dairy farmers is the cattle and buffalos' milk productivity, which is not more than 4 liters to 5 liters per day for the whole duration of the lactation cycle; approx. 8 milk producing animals of Pakistan are equal to 1 animal of the developed world.

The season also affects the supply of the milk, its production drops by 55 percent of peak production in May-June. While there is a 60 percent increase in the demand in this season as compare to December when there is abundant supply. In May the milk has low quality and low shelf life but the prices go high because of the shortage created in the market (PDDC, 2006).

In past, animals were imported or smuggled to Pakistan from Afghanistan but after 9/11, there was a 'U' turn as war in Afghanistan has adversely affected the livestock sector. Pakistan started exporting livestock to not only Afghanistan but also to the Gulf state and Iran because of mad-cow disease in Europe. This increase of exports required a corrective measure from the government to ensure a steady supply because the leather industries were faced by the shortage of raw material (Pakissan, n.d.).

The stakeholders and development experts agree that Pakistan's Dairy Sector has the capability to grow but is not considered due to various loopholes. The most critical one is the lack of coordination and vision for the dairy development among the support institutions and the government while implementing the desired strategy (SMEDA, 2005).

Another main issue is the adulteration and unhygienic practices while handling milk, middle-man usually adds ice to the milk in order to keep it fresh, it makes milk diluted and further more the ice contains contaminated bacteria because of poor quality water. Some of the middleman even adds vegetable oil to counter dilution; this causes major health issues and makes healthy milk very harmful and unhygienic.

Again government regulation can solve this problem but due to lack of developed milk collection systems, only a small percentage of milk is properly collected and handled (PDDC, 2006).

2.2 Comparison with other countries

In terms of yield, Pakistan has 5 million animals that give 35 billion litres milk annually while U.S.A. has only 3.4 billion animals which gives 94.5 billion litres of milk, this means that we have 1.6 million animals more than United States but we produce 60 billion litres less milk annually.

Similarly, Germany's yields are 5 times more than Pakistan with one-third of the milk animals and New Zealand are 3 times more than Pakistan in livestock industry, depicting a huge loss in the potential economic value (Ishtiaq, 2010).

The major problem for small holding dairy farmers is the dismal milk productivity of Pakistani cattle and buffalos which is less than 4 litres to 5 litres per day for the whole duration of the lactation cycle of around 305 days. On average a dairy animal in Pakistan yields 6-8 times less milk than a dairy animal of the developed world; approximately 8 Pakistani milk producing animals are equal to 1 animal of the developed world (Jassar Farms, 2009).

The major problem with dairy farming in Pakistan is the low milk yields of Pakistani cattle and buffaloes. This low production potential of Pakistani animals is mainly attributable to a few clearly identifiable issues such as lack of a systematic national breed improvement program, lack of availability of good quality fodder and nutrients and poor farm management practices (Jassar Farms, 2009).

2.3 Dairy Industry Structure & Issues

It is unfortunate that despite a massive herd size, the average animal holding size per household is less than 3 leading to an extremely fragmented dairy farming structure. This in itself poses a huge logistical issue for any organization or institution that is aiming to impact these farmers positively (Jassar Farms, 2009).

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Pakistan needs to have a coordinated and integrated strategy/approach beginning from enhancing per animal productivity, going straight to milk procedures/procurement and minimize the wastage (Ishtiaq, 2010).

3. Conclusion

After observing all the issues regarding the dairy industry of Pakistan, it can be concluded that the dairy industry possesses potential of growth and is very important from economic perspective. The major problem with dairy farming in Pakistan is the low milk yields of Pakistani cattle and buffaloes. This low production potential of Pakistani animals is mainly attributable to a few clearly identifiable issues such as lack of a systematic national breed improvement program, lack of availability of good quality fodder and nutrients and poor farm management practices. On average a dairy animal in Pakistan yields 6-8 times less milk than a dairy animal of the developed world; approximately 8 Pakistani milk producing animals are equal to 1 animal of the developed world. So Pakistan needs to have a coordinated and integrated strategy/approach beginning from enhancing per animal productivity, going straight to milk procedures/procurement and minimize the wastage.

References

Ahmad, S., Hinch, G., Prior, J., Thomas, P., & Burrell, D. (2012). The role of extension in changing the dairy industry in Pakistan: a review. *Journal of Animal and Plant sciences*, 22(2 Supl), 113-116. Retrieved May 4, 2012 from <http://www.thejaps.org.pk/docs/Supplementary/02/24.pdf>

Ameen, Y. (2012). *Pakistan's milk and dairy products industry reach \$26 billion*. Retrieved May 4, 2012, from <http://www.thenewstribes.com/2012/03/09/pakistans-milk-and-dairy-products-industry-reach-26-billion/>

The Dairy Council. (n.d). *Health benefits of milk*. Retrieved May 4, 2012, from <http://www.milk.co.uk/page.aspx?intPageID=73>

Government of Pakistan. (2008-09). *Economic Survey of Pakistan 2008-09*. Retrieved May 4, 2012, from

http://www.finance.gov.pk/survey_0809.html

Government of Pakistan. (2010-11). *Economic Survey of Pakistan 2010-11*. Retrieved May 4, 2012, from http://www.finance.gov.pk/survey/chapter_11/Overview%20of%20the%20Economy.pdf

Ishtiaq, H. (2010, January 4). Rising milk supply and demand gap. *Dawn news*. Retrieved May 4, 2012, from <http://archives.dawn.com/archives/25715>

Pakissan. (n.d.). *Dairy industry in Pakistan*. Retrieved May 4, 2012, from <http://www.pakissan.com/english/allabout/livestock/dairy/dairy.industries.in.pakistan.shtml>

Pakistan Dairy Industry – Overview. (2009). Retrieved October 10, 2012, from JassarFarms.com: http://www.jassarfarms.com/english/?page_id=63

PDDC. (2006, June). *The white revolution "dhoodh darya"*. Retrieved May 4, 2012, from <http://www.pddc.com.pk/DairyPakistan-Publication.pdf>

SMEDA. (2005, November 23). A brief on dairy sector. Retrieved May 4, 2012, from <http://www.smeda.org/sector-development/dairy-sector-brief.html>