

## Traditional buffalo milk chain in Bangladesh

### AUTHOR

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### UN SDGs



### Summary

**Location:** Bangladesh

**IDF Welfare Action Area:** Husbandry practice; Health management

### INTRODUCTION

Buffalo milk production is becoming an interesting business in Bangladesh. Water buffaloes are one of the main sources of milk in south Asia, except in Bangladesh, where this species is sharing 1.5 million heads contributing only 4% of national milk production [1]. Traditional buffalo production in a mixed-crop based livestock system is becoming popular in Bangladesh because of lower management efforts and feeding costs needed [2]. Among different types of production systems, the bathan (local name in Bengali) or free-ranging system is solely dependent on grazing on fallow land in remote islands and they are shifted to other islands based on the availability of green roughages. The household rearing system allows 5-7 hours of grazing combining supply of the minimum amount of straw, grass, and concentrates. The milk production per animal ranges from 1 to 3 L [3]. Marketing approaches of milk in these two production systems are based on supply to household needs and the remaining larger portion is used in the preparation of buffalo milk products [4]. Buffalo milk products, especially curd prepared from raw milk has a consumer preference in southern parts of Bangladesh whereas curd prepared from boiled milk, cheese, and ghee are more popular in the northern parts of Bangladesh.

### TRADITIONAL, FAMILY-RUN BUFFALO MILK CHAIN IN BANGLADESH RELIES ON HAND MILKING

Agro-climatic coastal and semi-costal

”Buffalo milk production is rising in Bangladesh because of lower management efforts and feeding costs needed.”

Shuvo Singha

districts in Bangladesh dominate the water buffalo population in this country. At present, Meghna-Ganga and Jamuna-Brahmaputra river flood plains are the buffalo pockets in Bangladesh but scattered throughout the country. Milking from buffalo is performed by hand milking traditionally because of being the feasible technique in terms of economic reason and less technical knowledge is required and then raw milk is carried in a special bamboo vessel or aluminium container from bathans, and household farms in the countryside. Milk is finally carried to the milk collection centre and sweet shops. The raw milk is carried by boat to cross riverine areas and then motorbike or by walk is chosen to reach the milk collection centre. Cool chain is not maintained during the transportation but in some places, middlemen mix ices or sink palm or banana leaves in the milk container during travel to keep the bulk milk cool in a traditional way. To evaluate the present status of the buffalo milk chain in Bangladesh, we are working on a Bangladesh-Sweden-Italy-Netherlands collaborated project entitled “Climate change mitigation by a sustainable water buffalo dairy chain in Bangladesh” to

identify the risk factors and best practices for better milk quality and safety from udder to consumer, focusing on udder health, handling practices and milk production.

### CONCLUSION

In this report, we briefly illustrated the traditional buffalo milk supply chain in Bangladesh. Despite a significant number of buffalo heads, buffalo milk production is certainly low compared to dairy cows in this country. There are only a few studies that have been reported in buffalo in Bangladesh and evidence about the hygienic quality of milk and milk products along the milk value chain is limited. Especially traditional curd made from raw buffalo milk might have health consequences with the possibility of contamination with zoonotic pathogens such as *F. coli*, *S. aureus*, *E. coli*, etc. Enhancement of buffalo milk and milk product hygiene can be regulated by Govt. and private company supported milk chilling centres in the buffalo pockets which has been planned recently. Milk pasteurization and final buffalo milk products can be prepared in central buffalo milk stations to supply nationwide. This can be an effective way to establish an ideal buffalo milk chain in Bangladesh. Motivating people in consuming safe buffalo milk and milk products should be a priority.

### REFERENCES

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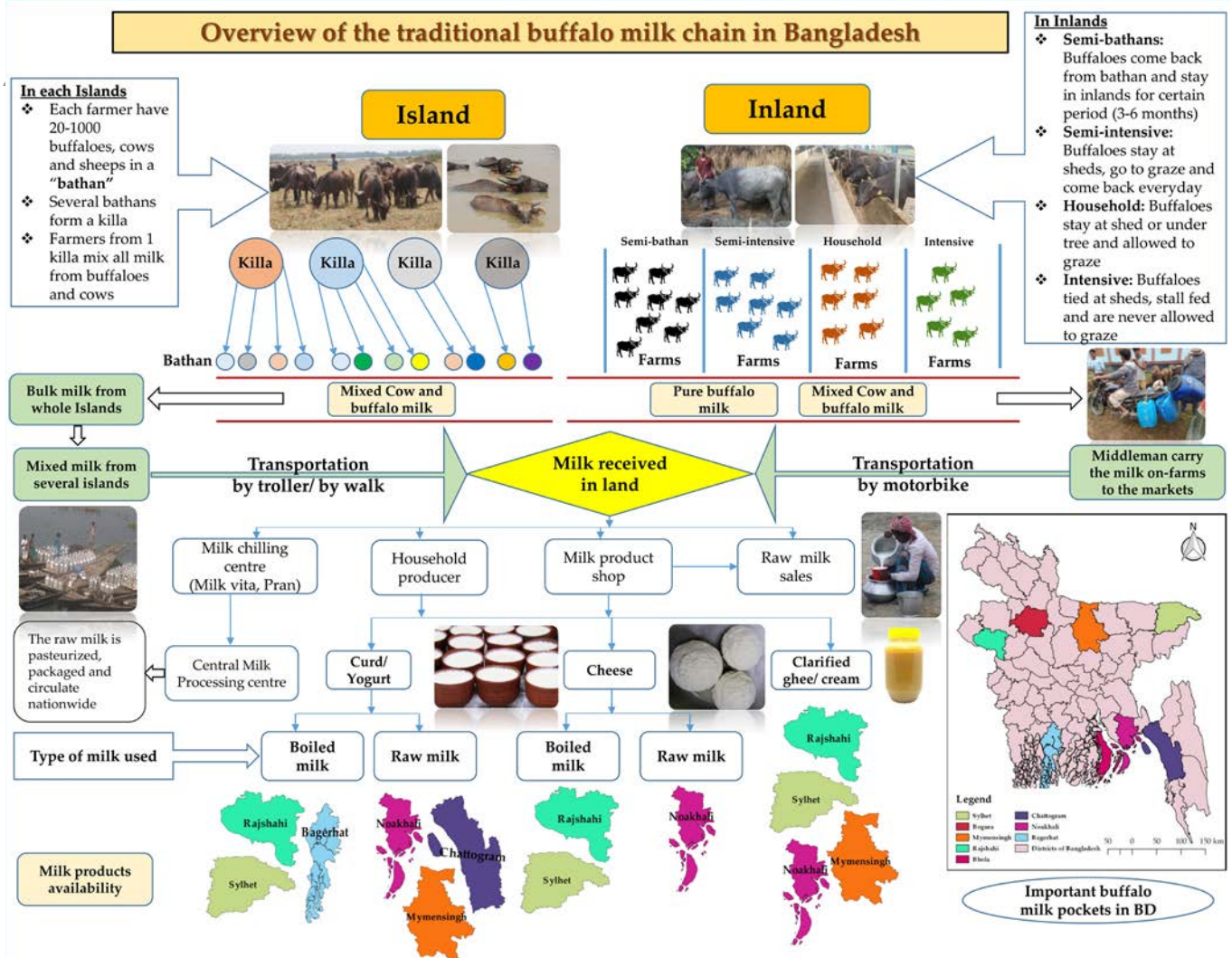


Figure 1 – Overview of the traditional buffalo milk chain in Bangladesh