

# PROJECT «NETWORK FOR AGRICULTURE AND RURAL DEVELOPMENT THINK-TANKS FOR COUNTRIES IN MEKONG-SUB REGION (NARDT)»



Regional research

Agricultural innovations review in Sub-Mekong region countries Buffalo dairy farm model in Luangprabang, Laos

## 1. Introduction

Consuming cow dairy products is common, while buffalo dairy products are less known and less consumed. This has made a buffalo dairy farm in Luangprabang an interesting and unique destination for both local and foreign tourists. The idea for this farm came about a decade ago when three Australians: Susie, Steven, and Rachel, visited Luangprabang and realized that it was difficult to find high-quality cheese in the city. They noticed the abundance of buffalos in the rural area of Luangprabang and were inspired to create their own cheese using buffalo milk. After many failed attempts, they finally developed successful recipes to make cheese and other products from buffalo milk. The story of the buffalo dairy farm goes beyond cheese and other dairy products; it is also about their collaboration with local villagers and their contribution to the sustainable development of the community.

### 2. Model development

The buffalo dairy farm is situated in Muangkhay village, approximately 25 kilometers from Luangprabang's city center. Its establishment dates back to 2016, and it presently provides employment for 30 full-time staff members. Initially, only four households contributed their buffalos to the milking process, but now over 150 households participate, each owning an average of one to three buffalos. The buffalo dairy farm is an environmentally and socially responsible farm that aims to enhance local agriculture by promoting buffalo farming, administering vaccinations, providing animal husbandry, veterinary care, and nutrition programs. It is a unique farm that integrates an organic farm, petting zoo, cheese-making workshop, ice-cream shop, and community support center.

The Buffalo dairy farm is a great example of a farm that thinks creatively and outside of the box when it comes to introducing new products. One such product is buffalo milk, which is not widely available in Luangprabang or Laos. The farm works with local villagers by renting their pregnant buffalo, taking care of them and their calves, and milking them for approximately six months before returning them. During this time, the farm provides feed, care, and vaccinations to the buffalo. Native buffalo usually produce between 1.5 to 4 liters of milk per day, whereas Thai Murrah Buffalo produce around 15 to 20 liters of milk per day. To improve milk yield, genetic health, and calf survival rates, the farm is crossbreeding Lao native buffalo with Indian Murrah buffalo. This will also increase the farm's income from productive buffalos.

The Buffalo dairy farm produces a diverse range of products that are made using buffalo milk. The founders started with cheese-making and Rachel, one of them, reached

out to cheese-making experts to find the right recipe. After numerous attempts, they discovered a recipe for mozzarella cheese using buffalo milk. In addition to mozzarella cheese, the farm uses buffalo milk as the primary ingredient in creating other products such as ice cream, yogurt, and cheesecake. These products are popular with both domestic and foreign tourists who visit the farm. Buffalo dairy products can now be found in many restaurants, hotels, and supermarkets in Luangprabang and Laos. Due to the increase in production, the farm plans to export its products to China and ASEAN.

The buffalo dairy farm has made several contributions to the development of the rural community in multiple ways. Villagers have found a new source of income by renting their buffalo and land to the dairy farm, earning approximately 40,000 per annum. The farm also provides employment opportunities to community members, allowing them to earn income and gain skills in areas such as animal husbandry, veterinary care, and milking process. The farm also takes care of the buffalo and their calves and has implemented a breeding program to improve calf survival rates. Additionally, the dairy farm provides new income and skills to community members who are employed in various roles such as dairy, production, and administration. Workshops are also conducted at the dairy farm to provide practical experience for teachers and students from the Northern Agricultural College.

#### 3. Opportunities and challenges

The model is a good opportunity for cooperation between businesses and farmers in the livestock industry chain to create sustainable livestock products both economically, environmentally and socially. However, due to the large farming space and difficulty in controlling farming households, disease risks still occur when households raise dairy buffaloes with meat buffaloes.

The cost of producing buffalo milk products is still high because some other ingredients have to be imported from abroad.

Climate change in the region also significantly affects the process of raising dairy buffaloes.

### 4. Conclusion

The sustainable development of the agricultural sector requires the contribution of many farms and businesses that are socially and environmentally responsible. Surely, the buffalo dairy farm in Luangprabang is one of those. Milk and other milk-related products from buffalo are innovative products in Luangprabang and Laos. The buffalo dairy farm considerably contributes to the development of rural communities. Renting farmers' buffalo is win-win cooperation. The dairy farm can make a profit while it provides a new source of income and job opportunities for local villages. Moreover, the buffalo dairy farm is not only a farm-feeding animal, but also a place where founders with adventurous souls cooperate with villagers, practitioners, and experts. The dairy farm is like a working room where we can learn practical knowledge in farming, cooperate with the local community, and bring innovation into farming production. /

For more information, please visit: Laos Buffalo Dairy — Laos Buffalo Dairy/