

## Status of Dairy Farming in Nagaland: A Descriptive Study

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### ABSTRACT

Dairy farming has been a common cultivation throughout the world. Dairy farming is considered a long term of production of milk and milk products. It can be milk of cows, sheep and goats which serve as a raw material and easily made available to the dairy factory for production of milk products, which is generally considered to be a nutritious diet.

While there are increasing demands for meat, fish and dairy products, Nagaland is deficient in producing all these food items. The 'State Focus Paper (SFP) 2022-2023 for Nagaland' released recently by the NABARD foresaw huge potential in animal husbandry sector. Citing a sample survey report carried out by the State's Department of Animal Husbandry & Veterinary Services (AH&VS) in 2018-19, the paper further noted that Nagaland produced just 43.35% of the total requirement of meat, milk and eggs worth Rs 1219.70 crore, leaving a shortfall of 56.65%. The shortfall in monetary terms works out to Rs 1986.87 crore, out of which the State imported animal husbandry products worth Rs 212.03 crore.

To achieving self-sufficiency in meat and value addition of milk have been identified the thrust areas for development of the animal husbandry sector. The paper has made an attempt to find out the present status of dairy farming i.e. production, marketing, per head requirement of milk etc through a descriptive study in Nagaland.

**KEYWORDS:** Dairy, State Focus Paper, Krishi vigyan Kendra, Cooperative Society

### INTRODUCTION

Milk occupies a special position among food items due to its nutritional benefits that ensure health security to humans, hence the demand for milk and milk products. Milk serves as the best source of nourishment for health. The prospect of this sector is to providing economic returns to the farmers which in turn improves their livelihood and could serve as a powerful tool for the reduction of poverty in rural areas Dairy production is mostly characterized by rural smallholder production of indigenous cattle and buffalo. While increasing farm-level production and productivity requires more improved animals, improved fodder/feed technology and access to livestock services, access of smallholders to reliable markets to absorb more milk at remunerative prices. Organized marketing of milk is significant mechanism to promote collective development of the sector.

In India, there has been a significant increase in the milk production in the last few decades. However, there is large variation across the region in the milk production as well as consumption. Nagas are known to eat highest amount of animal protein. This is due to food habits of the people which develop over a period of time or particular argument probably stands for lack of development of dairy in North Eastern region to choose as an alternative of animal protein.

In Nagaland, people learnt about milk only after World War II, as they used to subsist on non-vegetarian foods only. In fact, during the time when Christian missionaries came to this state with cows, people did not consider dairy farming to be a good occupation choice. But with time flying by and the industry registering growth, all the apprehensions gradually faded into thin air.<sup>1</sup>[1]

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Animal husbandry department officials said that apart from the local population, security forces stationed in different parts of Nagaland are the regular consumers of milk. This constitutes an achievement of sort, the officials explain, considering that till a decade ago milk production and marketing were monopolised by Nepali Khutiwalas (persons involved in rearing cattle). With the setting up of milk chilling plants and pasteurization plants in places like Diampur, Kohima, Mokokchung, Pfutsero and Wokha, Naga farmers have now taken up milk production as a serious business and women are taking the lead in rearing cows in urban and semi-urban places. Traditionally the Nagas were never inclined to rearing cattle for production of milk. Now toned of milk and other milk products in poly packs and cups under brand names KOMUL and DIMUL are sold not only in Nagaland, but also in neighbouring districts of Assam.<sup>2</sup> [2]

The 'State Focus Paper (SFP) 2022-2023 for Nagaland' released by NABARD foresaw huge potential in animal husbandry sector. The State produced just 74 thousand tonnes of milk, leaving a shortfall of 43.67 thousand tonnes as per the 2018-19 survey. This presents significant opportunities for

small holder producers to engage in dairy farming. The survey also informed that the per capita availability of milk was 97.99 grams/head/day against a standard recommendation of 150 grams/head/day.<sup>3</sup>[3]

#### Objectives of the Study:

1. To make an assessment of dairy production in the state.
2. To find out the marketing aspect of dairy industry.
3. To find out the per head requirement of milk.
4. To find challenges, policy implications and conclusion.

#### Methodology:

The present study is descriptive and based on observation and secondary sources.

#### Result and Discussion:

India is ranked 1<sup>st</sup> position in milk production contributing 23 per cent of global milk production. Milk production in the country has grown at a compound annual growth rate about 6.2 per cent to reach 209.96 MTs in 2020-21 from 146.31 MTs in 2014-15.

**Table 1: Estimates of Milk Production in North Eastern Region (000 Tonnes)**

State	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19
<b>All India</b>	<b>84,406</b>	<b>86,159</b>	<b>88,082</b>	<b>92,484</b>	<b>97,066</b>	<b>102,580</b>	<b>107,934</b>	<b>112,183</b>	<b>116,425</b>	<b>121,848</b>	<b>127,904</b>	<b>132,431</b>	<b>137,685</b>	<b>146,314</b>	<b>155,491</b>	<b>165,404</b>	<b>176,347</b>	<b>187,749</b>
Arunachal Pradesh	42	46	46	48	48	49	32	24	26	28	22	23	43	46	50	53	54	55
Assam	682	705	727	739	747	750	752	753	756	790	796	800	815	829	843	861	872	882
Manipur	68	69	71	75	77	77	78	78	78	78	79	80	82	82	79	79	82	86
Meghalaya	66	68	69	71	73	74	77	77	78	79	80	81	82	83	84	84	85	87
Mizoram	14	15	15	16	15	16	17	17	11	11	14	14	15	20	22	24	25	26
<b>Nagaland</b>	<b>57</b>	<b>58</b>	<b>63</b>	<b>69</b>	<b>74</b>	<b>67</b>	<b>45</b>	<b>53</b>	<b>78</b>	<b>76</b>	<b>78</b>	<b>79</b>	<b>81</b>	<b>76</b>	<b>77</b>	<b>79</b>	<b>74</b>	<b>73</b>
Sikkim	37	45	48	46	48	49	42	42	44	43	45	42	46	50	67	54	59	61
Tripura	90	79	84	86	87	89	91	96	100	104	111	118	130	141	152	160	174	185
<b>Source</b> : Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture and Farmers Welfare, GoI																		

Table 1 reveals milk production in North eastern region in 2001-02 to 2018-19. The highest production of milk is in Assam and least in Mizoram. In 2001-02 milk production in Assam was 682 tonnes increases to 882 tonnes in 2018-19. The growth rate is found 0.29 per cent. In Nagaland in 2001-02 the production was 57 tonnes which increases to 73 tonnes the growth rate is found 0.28 per cent. The all India growth rate at the same time is found 1.22 per cent.

**Table 2: Per Capita Availability of Milk in North Eastern Region (gms./day)**

State	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19
<b>All India</b>	<b>225</b>	<b>230</b>	<b>231</b>	<b>233</b>	<b>241</b>	<b>251</b>	<b>260</b>	<b>266</b>	<b>273</b>	<b>281</b>	<b>290</b>	<b>299</b>	<b>307</b>	<b>322</b>	<b>337</b>	<b>355</b>	<b>375</b>	<b>394</b>
Arunachal Pradesh	105	112	109	114	113	114	73	55	59	63	44	49	93	98	105	109	111	112
Assam	70	71	71	72	72	71	70	70	69	71	70	69	69	70	70	71	71	71
Manipur	86	85	85	90	92	91	91	90	88	88	80	80	80	80	76	75	77	80
Meghalaya	78	78	78	81	82	81	83	83	83	83	74	83	84	84	83	83	83	84
Mizoram	43	45	44	46	43	46	47	47	29	31	35	36	40	53	57	62	63	64
<b>Nagaland</b>	<b>78</b>	<b>78</b>	<b>83</b>	<b>90</b>	<b>96</b>	<b>86</b>	<b>58</b>	<b>67</b>	<b>96</b>	<b>93</b>	<b>108</b>	<b>94</b>	<b>95</b>	<b>88</b>	<b>89</b>	<b>91</b>	<b>84</b>	<b>81</b>
Sikkim	187	222	231	221	232	231	195	194	200	194	202	186	200	215	282	228	244	251
Tripura	77	66	68	70	70	71	72	74	77	80	83	88	95	103	109	114	123	129
<b>Source :</b> Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture and Farmers Welfare, GoI																		

Table 2 reveals the per capita availability of milk per head per day. In North Eastern Region the highest per capita milk is available in Sikkim and least in Mizoram. In 2001-02 the per capita milk in Sikkim was 187 grams which increases to 251 grams in 2018-19. The growth rate is 0.34 per cent. In Nagaland the per capita milk in 2001-02 was 78 grams which increases to 81 grams in 2018-19. The growth rate of per capita availability milk is found 0.038 per cent. The growth rate of availability of per capita milk in the country is found 0.75 per cent in the same period. *It is observed that the per capita milk in the state Nagaland is less than the standard 150 grams per day per head in the period 2001-02 to 2018-19.* But from our countries prospect the per capita milk is more than standard 150 grams per day per person in the period 2001-2 to 2018-19.

**Table 3: Milk Production in Nagaland 2010-2021(000 MT)**

Sl. No	Year	Milk Production (M.T)
1	2010-2011	77.84
2	2011-2012	78.14
3	2012-2013	78.35
4	2019-2020	76.50
5	2020-2021	55.93

**Source:** Statistical Hand Book Nagaland of 2013 & 2021

Table 3 shows aggregate production of milk of the state. Table reveals the total milk production increases from 77.84 MT in 2010-11 to 78.35 MT in 2012-13. But there is a declining trend of total milk production to 76.50 MT in 2019-20 and 55.93 MT in 2020-21 due to Covid-19 pandemic and disruption and lockdown.

**Table 4: Projected Population and Requirement of Animal Husbandry Products**

Items	2011	2015	2020	2025
Projected Population	1980602	2186214	2473500	2798539
Meat (MT)	57834	63837	72226	81717
Milk (Kilo, Litres)	36146	39898	45141	51073
Egg (Lakh in No.)	2060	2274	2572	2910

**Source:** Vision 2025 Food for All, Govt. of Nagaland. (Population growth @ 2.5 per cent per annum)

Table 4 shows the requirement of animal husbandry products. The additional requirement of milk is 81717 litters in 2025. The present production of meat, milk and egg cannot meet the rising demand of the state so about 45 per cent of the total requirement has to be imported from outside the state.

The Nagaland State Dairy Co-operative Federation (NSDCF) Ltd. was set up in the year 2002 as an Apex body for implementation of Dairy Development activities in the State of Nagaland. The NSDCF Ltd. is registered under Assam Co-operative Societies Acts, 1949(Act 1 of 1950) vide registration No. NL/5809 dated 12<sup>th</sup> March 2002. NSDCF Ltd. is a state level organisation consisting of three Milk Producers' Co-operative Unions of Dimapur (DDMPCU); Kohima (KDMPCU) & Mokokchung (MDMPCU). So far, 120 Dairy Co-operative Societies (DCS) has been organised in the state. Since the date of inception, the dairy development activities in the State is being carried out replicating the "Anand Pattern" (AMUL) with the theme "Production by Mass".

**Table5: Annual Production and Marketing of NSDCF Ltd. in 2020-21**

Sl. No.	Particulars	Qty.
1	Total Procurement ('000 Litres)	0.739
2	Pasteurized Toned Milk Production ('000' litres)	1.117
3	Lassi production ('000 Litres)	3.720
4	Misti Dahi ('000 Litres)	0.892
5	Ice-cream ('000 Litres)	0.113
6	Paneer ('000 kgs)	1675.75
7	Ghee production ('000 kgs)	732.75
8	Peda ('000 Kgs)	83.50
9	Balanced Cattle Feed produced ('000 kgs)	350.00
10	Packaged Drinking Water ('000 Litres)	2.70

**Source:** The Nagaland State Dairy Cooperatives Federation Ltd.

**Table6: Milk Procurement, Processing and Marketing of NSDCF Ltd. in 2020-21**

Sl. no	Particulars	Qty. in lakh litres /kgs
1.	Total Milk Procurement	4.89
2.	Total Milk Processing	6.51
3.	Total Milk Marketing	6.51
4.	Packaged drinking water(20 litre jars) Marketed	1.20
5.	Balanced Cattle Feeds	0.72

**Source:** The Nagaland State Dairy Cooperatives Federation Ltd.

The table 6 Nagaland State Dairy Cooperative Federation data reveals that the total milk processing marketing is about 6.51 lakh litres in 2020-21 which is seems to be increasing based on continuous demand of increasing population. At the same time about 95000 litres fresh milk directly is sold per day to the consumers in the state.

#### **Challenges suggestion and conclusion:**

The challenges faced by North Eastern India in general and Nagaland in particular for food and nutritional security to fast growing population needs an integrated approach for livestock farming. With increasing population, income and urbanization, demand for animal proteins has increased. The socio-economic and socio-cultural condition, the state needs job-led economic growth strategy based on pro-nature, pro-poor and pro-women policies and its dissemination. The role of livestock and poultry farming in livelihood earning of farmers is enormous. Currently, the total production of milk in major three districts is 114684 litres/day (Kohima-50750 litres/day Dimapur-45977 litres/day and Mokokchung-17957 litres/day) and about **95000 litres/day** of raw milk is sold directly to consumers. However, the following Challenges to be satisfied for the growth as well as deficit production in the state

- Formation of village level dairy cooperative societies may organize the farmers of the remote areas.
- To supply the collective raw milk to dairy processing plant the milk route be organized.
- To minimize the damage and waste of milk the cold storage facilities to be developed to all village cooperative societies and in transportation.

- To enhance productivity the farmer may improve the cattle breed.
- Training from concerned department and credit linked with financial institutions either individually or from society is very much essential for the expansion of sector.
- Immediate disease control by appropriate medicine and health care with nutritious food of the cattle's is another measure to increase productivity.

The study completely based on observation and secondary sources might have some limitation because a sample of larger dimension in the field study might reflect accurate and exact picture of the problem. But yet, analyzing the secondary data with observation the study observed that the people the per capita availability of milk in the state range from 81-97.99 grams/head/day against a standard recommendation of 150 grams/head/day. The State produced 74 thousand tonnes of milk, leaving a shortfall of 43.67 thousand tonnes which represents a huge potentiality of the sector in near future.

In conclusion considering the shortfall of production and increasing demand of raw and finished value added milk product of the state it is expected that more and more young educated generation will be attracted towards the dairy industry in the near future

and it will definitely help to tackle the unemployment issue of the State. It is also expected that a good number of research activities will expose the feasibility of dairy industry in all the parts of the state; it will ensure awareness to farmers to receive various Govt. added schemes plan and policies, providing awareness to the farmers to receive reasonable returns of their product.

#### References:

- [1] Sharma VK & Kulshrestha RK: Contribution of Rural Women in Dairy Income, Asian Journal of Dairy and Food Research, Vol. 39, Issue 4 December 2020
- [2] Singh Mahak & Pongener Nungshitula: Dairy Farming in Nagaland An Emerging Enterprise, Indian Farming 71 (02): 23-24; February 2021
- [3] Sharma M I, Raka Saxena and Dipan Das (2007): *Potential and prospects of Dairy Business in Uttarakhand A case study of Uttarakhand Cooperative Dairy Federation Limited.* Agriculture Economics Research Review, Vol. 2 Issue 2007.
- [4] Dairy and Products Annual-2021; United States Development of Agriculture; Foreign Agricultural Service, Report No. IN2021-0122
- [5] Comprehensive Study of Assam Dairy Sector; Action Plan for Pro-Poor Dairy Development; International Livestock Research Institute 2007
- [6] Statistical Hand Book of Nagaland of 2013 & 2021
- [7] The Nagaland State Dairy Cooperatives Federation Ltd
- [8] Vision 2025 Food for All, Govt. of Nagaland
- [9] National Dairy Development Board
- [10] <https://business.mapsofindia.com/milk-co-operatives/nagaland.html>
- [11] <https://www.hindustantimes.com/india/women-take-lead-in-dairy-development-in-nagaland/story-Q7HQNUlreVwOXhN17yBFTJ.html>
- [12] <https://www.morungexpress.com/sfp-on-nagaland-ii-nabard-sees-huge-potential-in-animal-husbandry>

