



Fantasy of meat consumption and buoyant meat market in Kohima, Nagaland

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ABSTRACT

In view of the much acclaimed saying that Nagas are heavy meat eaters, a study was carried out in the capital city of Kohima, Nagaland State with twin objectives of categorizing the meat consumers in the area and to estimate the expenditures on meat. With a pre-tested, reliable and valid interview schedule, data were collected personally by tracking back the meat consumers from different meat markets in Kohima. As many as 100 meat customers and 30 sellers were interviewed to make the sample size 130. Meat consumers in Kohima, Nagaland consumed meat from both conventional and non-conventional origin much higher than the recommended level. It was around 27 kg/family/month in a family of about 4 to 5 members. Therefore, total meat consumption per month both conventional and non-conventional was a matter of considerable concern for the state's exchequer. Further majority of the population fell under the medium to high meat consuming groups. There was also zone-wise mean difference among meat consumers while there was no significant mean difference between the meat customers and the sellers. A total expenditure of Rs 1,393,092.96/ day in the capital city was made on meat. Assuming local production at the rate of 25%, the deficit per day was Rs 1,044,819.72. This however, exposed two facts quite apparently that, one - people in Kohima, Nagaland had a necessity to re-learn about consumption of meat in and around recommended level and two - there is a huge scope for production of meat yielding livestock and poultry in and around Kohima, Nagaland.

Key words: Conventional meat, Meat customers, Non-conventional meat, Sellers, Total expenditure.

Meat as a food, among the non-vegetarians is the most sought after commodity all over the world today. One of the greatest challenges faced by the human race today is how to feed satisfactorily an ever-increasing population and at the same time ensure the sustained conservation of the world's natural resources and biodiversity. Meat is a relatively concentrated source of protein of high quality (NPU 0.75–0.80), highly digestible and it supplies a relative surplus of one essential amino acid, lysine which relatively is in short supply in most cereals (FAO 2011).

The literacy rate in Kohima, the capital city of the state of Nagaland with total population of 270,063, is 85.58%. Majority of them socially and economically hails from the middle and lower classes. In 2012, in fact, the population rate in Nagaland showed a negative growth. (Anonymous 2012). Meat forms an almost compulsory dietary component in the daily menu for the people of Kohima. Although not supported by any empirical study, Nagaland in general and Nagas in particular are known as “heavy meat consumers”. It is believed that the per capita consumption of meat in Kohima is much higher than the recommended level of 34.00 g / head / day by Indian Council of Medical Research

(Konyak 2003). The monetary value of availability and import of meat from outside the state was felt to be beyond imagination. Nationally the percentage of money spent on meat is highest in Nagaland than in any other state (Deka and Thorpe 2008). States like Uttar Pradesh, Haryana and Jharkhand are the major suppliers of meat animals to many North East States including Nagaland. Also in Nagaland, the deficit problem is regularly met up with import of live animals from Asom, Manipur and countries like Myanmar (Deka and Thorpe 2008). Therefore, in order to develop constructive and profitable information for the people of Nagaland, a critical understanding of meat marketing was planned to categorize conventional and non conventional meat consumers, and estimate the expenditures on meat consumption and amount siphoned out daily from Kohima, Nagaland.

MATERIALS AND METHODS

The research work was carried out in Kohima, Nagaland in view of the facts that (a) all tribes of the state were in Kohima having their own set of meat consuming behaviour intact, (b) it was the capital town, and (c) main meat markets of the state are in the city. The study area was divided into the north zone, south zone and the west zone. A total of 21 regular and established meat markets were found active in the district with 11 meat selling points in northern zone of

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Kohima, 9 selling points in the southern zone of Kohima and a single meat market in the western zone of Kohima. In each zone, customers falling into different strata who purchased meat at least twice a week were selected randomly and they were traced back from the market and individually interviewed. In the north zone 47 respondents (10 sellers and 37 buyers), in south zone 68 respondents (18 sellers and 50 buyers), and in west zone 15 respondents (2 sellers and 13 buyers) were selected and interviewed. A total of 130 respondents which included 100 customers and 30 sellers were interviewed. To fulfill the objectives of the study, data for various relevant aspects were collected through a pre-tested reliable and valid interview schedule. The reliability coefficient was established by using the interview schedule among the meat marketers and meat consumers in Dimapur district. Validity was ensured by individually examining each item on merit and placing them in the interview schedule in a sensitive manner. The data thus collected were scored, compiled, and tabulated as per the established norms and procedures and were subjected to appropriate statistical analysis in order to achieve the set objectives.

RESULTS AND DISCUSSION

The average consumption (kg) comprising both conventional and non-conventional meats, per month per respondent were 27.49, 25.70, 28.33, 28.87 20.52 and 26.94 (Table 1) in South zone, North zone, West zone, buyer category, seller category and pooled sample respectively with their respective standard deviations as 16.36, 12.42, 11.88, 15.69, 6.27 and 14.50. The respective ranges in terms of kg were 7.5 – 72, 7 – 63, 14 – 59, 7 – 72, 11 – 31 and 7 – 72.

Conventional meat in Nagaland comprised of pork, beef, chicken and fish. Non-conventional meats available in the market were snail, silk worm, dog, frog, deer meat, bee larva and grub. It could be seen from Table 1 that about 27 kg of meat were consumed per family per month in Kohima, Nagaland. Considering the fact that the number of average family members was less than five; the amount of meat consumed per day by the family members was much higher than the recommended levels. Similar finding was reported by Konyak (2003). It was further alarming that about 92% of the total respondent occupied medium to high category of meat consumption groups per month. It was in fact only the sellers who consumed lesser meat per month than the

respondents in all the zones. Among the zones also the respondents from west zone consumed the highest amount (28.33 kg/family/month) followed by south zone (27.49 kg/family/month) and least being the north zone (25.7 kg/family/month). These figures again viewed as a very conservative representation against the consideration of different festivals, events and occasions so frequently happening in the state of Nagaland where meat consumption among the community members reached the peak but at no time do they come under consideration of any calculation. Further, the societal orders or norms were such that acknowledgement of any help, co-operation or sacrifice is always conveyed by presenting meat in the society.

The higher consumption of meat actually went back to their food consumption habits where Naga people commonly had their lunch at about 8–9 AM in the morning and kept working for the whole day with some light food in between. That habit needed food of more satiety value and as such consumption of meat was a necessity. Keeping all the above mentioned facts aside, it could be seen that the respondents from the west zone were the highest consumers, followed by the south zone of Kohima. This might be due to the fact that the respondents from the west zone were mostly Government higher level employees and therefore probably consumed more meat for satisfaction as well as a mark of status/hospitality to others. It might be therefore, an expression of their greater socialization process. Similar finding was supported by Puoane *et al.* (2006). Similarly, respondents from south zone being the oldest residential zone in Kohima might have maintained

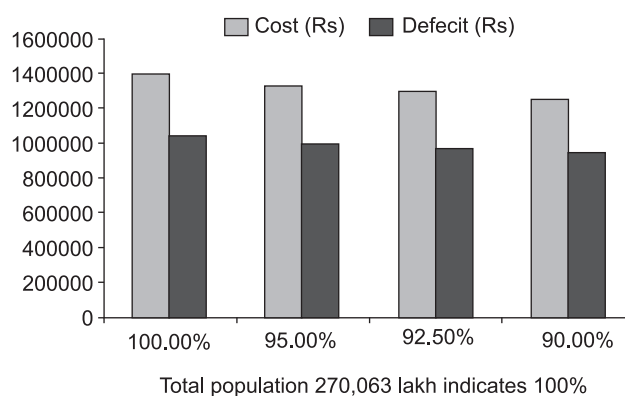


Fig. 1. Graphical representation of expenditure and import cost (in rupees) of meat in Kohima, Nagaland per day.

Table 1. Total conventional and non-conventional meat consumption (kg0 per month

Variable	Category	Mean	S.d.	Range	Low	Medium	High	Mean difference
1. Total meat consumption/month (Conventional and non-Conventional in kg)	South Zone (N=68)	27.49	16.36	7.5 – 72	4(5.88)	52(76.47)	12(17.65)	'F' Value 9.76 **
	North Zone (N=47)	25.70	12.42	7 – 63	5(10.64)	35(74.47)	7(14.89)	
	West Zone (N=15)	28.33	11.88	14 – 59	2(13.33)	11(73.33)	2(13.33)	
	Buyer (N=100)	28.87	15.69	7 – 72	8(8)	76(76)	16(16)	't' value 1.48 NS
	Seller (N=30)	20.52	6.27	11 – 31	8(26.67)	17(56.67)	5(16.67)	
	Pooled (N=130)	26.94	14.50	7 – 72	10(7.69)	98(75.38)	22(16.92)	

Table 2. Meat requirement, cost of meat and yearly estimated expenditure on meat in Kohima meat markets

Per day consumption of meat	Whole population	5% less population***	7.5% less population***	10% less population***
<i>Amount :</i>				
0.214 g /person / day *	2,70,063**	2,56,560	2,49,808	2,43,057
<i>Cost :</i>				
₹ 160 × 0.214 =	₹ 13,93,092.96	₹ 13,23,439.04	₹ 12,88,609.60	₹ 12,53,785.28
₹ 32.24/person/ day				
<i>Local production assumed @ 25% :</i>	25% of	25% of	25% of	25% of
	₹ 1288609.6 =	₹ 13,23,439.04 =	₹ 13,93,092.96 =	₹ 1253785.28=
	₹ 3,48,273.24	₹ 3,30,859.76	₹ 3,22,152.40	₹ 3,13,446.32
Deficit per day in ₹	₹ 10,44,819.72	₹ 9,92,579.28	₹ 9,66,457.20	₹ 9,40,338.96
Total amount of deficit in 365 days	₹ 38,13,59,197.80	₹ 36,22,91,072.20	₹ 35,27,56,878.00	₹ 34,32,23,720.40

* Finding from this study. ** Statistical Handbook of Nagaland 2012. *** Assuming the total count of vegetarian population comprising of non meat consumers, infants, diseased and very elderly persons.

the traditional food habit of compulsorily having regular meat in their food.

Based on the mean and standard deviation their distribution as low, medium and high meat consuming groups, it was found that except in case of the sellers, in all other groups medium group was followed up by the high meat consuming group and in the pooled sample, it was 7.69%, 75.38% and 16.92% respectively. Similar finding was supported by Wright *et al.* (2010). The mean difference i.e. 'F' value among the consumers of south, north and west zones of Kohima meat markets showed a highly significant (9.76**, $P < 0.01$) result. However, 't' value between the buyer and seller category showed no significant difference (1.48, NS). This highly significant mean difference among the meat customers was due to more consumption pattern in west zone due to better affluence followed by south zone due to traditional mannerisms. Experience at the time of data collection also revealed that the factors influencing such a state of affair as said earlier might be better education, better economy, position, status and traditional values. This finding was supported by Kernen (2005) and Anonymous (2011).

Table 2. indicated that the daily expenditure on meat for the people of Kohima, Nagaland was Rs.13,93,092.96 and the deficit amount assuming local production at the rate of 25% [Anonymous (2012), Nagaland Basic Facts] was Rs.10,44,819.72. The graphical representation (FIG. A) also vividly indicated that there was a very small amount of local production of meat in Kohima city and about 75% or more than that amount of meat was regularly coming from outside. So, a huge amount of money was regularly going out from the state on account of meeting the demand for meat in Kohima, Nagaland. The deficit amount in 365 days was estimated to be to the tune of Rs.38,13,59,197.80 out of the total population of 2,70,063 number of persons in Kohima city in Nagaland. This was definitely a matter of concern.

Naga people would continue to consume meat as they felt like. Two areas of concern might evolve from this

finding – one, people in Nagaland had a necessity to re-learn about consumption of meat in and around recommended level for their own health and two, there lied huge scope for production of meat yielding livestock and poultry in and around Kohima, Nagaland. In fact many people in the state of Nagaland are of the opinion that a large amount of money is spent every month to import meat to the state. This was supported by the statement as reported by Anonymous (2012) in Nagaland, Basic Facts.

It was seen that the meat consumers in the capital city of Kohima, Nagaland remained much higher than the recommended level of ICMR. It was around 27 kilograms/ family/month in a family of about four to five members. Therefore, total meat consumption per month both conventional and non-conventional was a matter of considerable concern for the state's exchequer. There was however, significant difference in meat consumption habits in the different zones of the city although no significant difference lied between the buyers and sellers. As high as about 92% of the respondents fell in medium to high meat consuming group. It was found that a total expenditure of Rs. 13, 93,092.96 per day in the capital city was made on meat. Assuming local production at the rate of 25% the deficit per day was Rs.10, 44,819.72 in a population of 2,70,063 in Kohima city alone. This however, exposed two facts quite apparently that, one - people in Kohima, Nagaland had a necessity to re-learn about consumption of meat in and around recommended level and two - there lied huge scope for production of meat yielding livestock and poultry in and around Kohima, Nagaland.

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