Meat consumption in Mizoram with Special Reference to Households in Southern Aizawl

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Abstract

The people of Mizoram can be considered as meat lovers and majority of the population can be attributed as meat consumers. There is shortage of meat supply especially in the case of pork and other meat as well. The gap in demand and supply has led to certain inevitable problem as meat consumption worldwide is increasing. In developing nations like India, the motive of the rising population tends to find more activities in the urban adding more consumption of meat and other nutrition as well. The study will try to examine the factors considered in meat purchase decisions of households in the Aizawl South area in contrast to finding out the meat consumption pattern practiced by the households.There is a very low supply of the livestock which is very unfortunate, while there are many unemployment problems of the youth, there needs to be a serious awareness of the status of supply and demand in general so that they will be motivated to take up opportunities in the field, profiting the individuals and the nation as well.

Keywords: meat, meat consumers, pork, beef, chicken, fish, mutton, Aizawl south

INTRODUCTION

1.1 Introduction to Consumption of meat:

The majority of the people of Mizoram can be considered as meat consumers and of course, the majority of the population can be attributed as meat consumers. Telegraph India even once referred the Mizos as strictly meat consumers. And in fact, there is a huge shortage of meat supply especially in the case of pork, The Telegraph Kolkata: Wednesday, April 14, 2010, once mention that "The huge gap in demand and supply has led to the problem, sources said. Mizoram needs 6,000kg of pork every day but suppliers can only provide 2,500kg." And there is no denying the huge import of the live animals for meat from neighboring country 'Myanmar', resulting in huge inflation in the price of meat in and around Mizoram. While still some families often find a hard time their weekly family share of meat. From the Governments' data, it is also clear that pork is the most favorite meat amongst those who are on the list of the study premises. Pork and beef are generally sold fresh and a large proportion is also available as smoked which is very common. Chicken and goat meat is sold fresh as well, though sometimes chicken is found barbequed and prepared ready to eat. Most of the food places and restaurants would run serving these meats as their main dishes.

Meat:

According to the Oxford Dictionary, "Meat is the flesh of an animal, typically a bird or an animal as food." Codex Alimentarius defined meat as all parts of an animal that are intended for or have been judged safe and suitable for, human consumption Meat is considered highly nutritious and plays an integral part in the human diet. It composes of water, protein and amino acids, minerals, fats, and fatty acids, vitamins and other bioactive components, and small quantities of carbohydrates. Poultry supplied meat and eggs, cattle, sheep, and goats provided meat and milk, and pigs act as a source of meat. Beef is derived from cow and cattle, pork from pig and chicken as poultry.

According to UNFAO (2007), India follows a system where vegetarian products are marked with a green dot in green square and animal-based products with a brown dot in a brown square. Recently, the Union Government gave its assent to the Maharashtra Animal Preservation (Amendment) Bill, banning the sale and possession of beef. Maharashtra joins other states like Uttar Pradesh, Tamil Nadu, and Rajasthan, etc. where cow slaughter is banned. Daman and Diu permit cow slaughter, provided they are old or sick, or for medicinal purposes. States like West Bengal permit cow slaughter, provided they issue 'fit for slaughter' certificate. However, states like Mizoram, Nagaland, and Kerala, etc. allow the slaughter of cattle and require no certificate. There is no national law that bans the consumption or sale of beef. However, India is the second-largest producer of meat, after Brazil. Livestock plays an important role. Dairy and poultry sectors are major contributors to the economy. Animal husbandry contributes about 5.5% of the Indian GDP.

In developing countries, culture plays a crucial role in determining food patterns (Lahsaeizadeh, 2001). As Indians are controlled by the traditions and customs, thus the dietary habit is significantly influenced. In the Indian context, culture, traditions, customs, and taboos influence meat consumption to a great extent, especially in rural societies. However, studies show urbanization has been causing a rise in demand for meat products. As people move to cities, they adapt to get into meat consumption. The difference in consumption and production methods correlates strongly with the overall economy of a country. India is the country that consumes the least meat per capita (Tepper, 2012).

India has the highest rate percentage of vegetarians in the world. UN Food and Agriculture Organisation (FAO) stated that as of 2007, India has the lowest rate of meat consumption. According to the Hindu-CNN-IBN, State of the Nation Survey 2006, 31% of Indians are vegetarians while 9% consume eggs. Among the various Indian communities, vegetarianism was most common among the Jains and the Brahmins. Regional location matters as much as caste and religion. There is also a change in food habits due to the influence of modernity. Fast-food retailer McDonald's does not sell beef burgers in India and some co-operative housing societies ban meat consumers from buying or renting property. According to the FAO, India produces 10.6 million tons of meat and fishes a year, but the country remains a stronghold of vegetarianism. There are no official government figures on the number of vegetarians but in 2006, the newspaper, "The Hindu", conducted a nationwide survey that concluded that up to 40 percent of the country consumes dairy products and eggs but no meat which is the highest number in the world.

Mizoram: Mizoram is one of the states of Northeast India, with Aizawl as its capital. The name is derived from *Mi* (people), *Zo* (Belonging to the people of Mizoram/Lushai Hills) and *Ram* (land), and thus Mizoram implies "land of the hill people". In the northeast, it is the southernmost landlocked state sharing borders with three of the seven sister states, namely Tripura, Assam, and Manipur. The state also shares a 722-kilometer border with the neighboring countries of Bangladesh and Myanmar. Like several other northeastern states of India, Mizoram was previously part of Assam until 1972, when it was carved out as a Union Territory. It became the 23rd state of India, a step above Union Territory, on 20 February 1987.

1.2 Need/Reasons for the study:

It is no doubt that meat consumption worldwide is increasing. This is due to the rise in population and the increasing economy with more urban activities. In developing nations like India, the motive of the rising population tends to find more activities in the urban adding more consumption of meat and other nutrition as well. The demand for meat is ever rising with the population in Mizoram. Table No.1 is the estimate of meat production in tons in Mizoram.

Table no.1 Estimated Meat Production in Mizoram (in tons)

Year	Cattle	Buffalo	Goats	Pigs	Poultry	Mithun	Total
2006-2007	1842	32	64	6810	1492	13	10253
2007-2008	1931	69	68	7355	2000	7	11430
2008-2009	2201.92	39.346	78.163	7894.16	2236	30.02	12479.61
2009-2010	3352	51	58	5313	1451	10	10235
2010-2011	3269	59	48	4545	1762	17	9700
2011-2012	3364	96	64	7393	2201	40	13158
2012-2013	3416	101	67	6892	1561	39	12037
2013-2014	3458.995	96.841	67.824	6925.252	1593.838	46.387	12189.137

Source: Mizoram Economic Survey 2014- 2015

There have been several outbreaks of swine flu in Mizoram and a number of times, it has been flashed in the most popular newspapers in Aizawl. Highlighting the gap in the demand of meat as well, Table no.2 shows the shortage in supply of meat as per the recommendation of the Indian Council of Medical Research (ICMR). The majority of the people of Mizoram are meat consumers and thus required to study the consumption pattern. Some of the elders in the locality even say that the Mizos could have the habit of eating more than the recommendations of the ICMR.

Table no. 2 Demand Gap of meat according to ICMR Recommendation 2013-2014

Requirement according to ICMR* Recommendation		Availability	Demand Gap
Meat	14225 tonnes	12189 tonnes	2036 tonnes

Source: Mizoram Economic Survey 2014-2015

There has been an ever-rising import of meat in the form of live animals from the neighboring regions of Mizoram, the consumption pattern of the people could have add to the need of such activities, this adds to the need to get insight to the pattern of meat consumption. The study will also attempt to find the buying pattern to find out the budget of meat in the family food basket which will try to find out the most favorite meat as well. The news.webindia123, Aizawl, Monday, Jun 27, 2011, IST have flashed "35 % of Mizoram meat consumption imported" in the headline and thenortheasttoday.com, TNT News, **AIZAWL**: With the state's pork produce far from meeting the requirement, Mizoram heavily depends on import from the neighboring states, including Myanmar. Thus it felt very strong to at least dive in to find out the insight of the meat industry in Mizoram. Suggestions and opinions of the sample to the maximum level will be taken into consideration as well.

1.3 Review of literature:

R. K. Maqikuri (1992) in his study 'Eco-energetic analysis of animal husbandry in traditional societies of India especially in northeast India' found that poultry and swine husbandry are largely detritus-based and are less relatively dependent upon the forest, unlike cattle and Mithun that are sustainable only when the forest-resource base is high. The study found that there is room for recycling of resources within the subsystem e.g., through the utilization of dung that is otherwise wasted.

G.C. Benerjee(1998) in A Textbook of Animal Husbandry, in India pig raising and pork Industries are in the hands of traditional pig keepers belonging to the lowest socio-economic stratum with no means to undertake intensive pig farming with good foundation stock, proper housing, feeding, and management. They are compelled to follow old and primitive methods with common village hogs which could properly be designated as scrub animals.

Shenggen Fan (China Daily), 2004 dated 28th April, has stated the importance of pork in the Chinese diet and economy and is likely to remain so in the foreseeable future given the increasing demand for meat because of rising incomes and urbanization. As the largest producer and consumer of pork, China accounts for half of the world's pork production and consumption. In the last few years, rising

pork prices have been a major driver of food inflation in the country. But now a declining price trend has begun to emerge. Based on official data, pork prices in March 2014 fell by close to 7 percent year-on-year, though food price inflation rose by about 4 percent. The recent fall in prices has been widely attributed to consolidation in China's pork industry leading to cycles of rapid expansion in pork production. This periodic excess supply of pork can lead to a vicious cycle of reduced employment, production and profitability in the industry.

According to the Cambridge world history of Foods (2001), The Advantages of Pig, from a contemporary utilitarian perspective, the pig is one of the glories of animal domestication. It is prolific. After a gestation period of only 4 months, a sow gives birth to an average of 10 piglets, though litter size may, on occasion, be as large as 30. Growth is rapid. In 6 months, piglets of 1.2 kilograms can potentially increase in weight by 5,000 percent. This growth translates into a higher return for energy invested than for other domesticated animals. Another advantage is the omnivore of pigs, which permits a wide range of food options; items that are plentiful and cheap can dominate the intake. For example, surplus crops, such as sweet potatoes in New Guinea, coconuts in Polynesia, maize in the mid-western United States, and barley in Denmark, are frequently enhanced in value because they can be fed to swine. A major disadvantage of pigs is their low ability to digest fibrous plant matter, so that, unlike ruminants, they cannot do well on cellulose alone.

A Kumaresan et. al. (2006) undertook a study to assess the growth performance of Hampshire, Large White Yorkshire and Mizo local pigs under field conditions in Mizoram. Piglets (45: 8 males and 7 females of each breed) were selected randomly in and around Kolasib district of Mizoram. The existing local methods of housing, feeding and other management practices were recorded. From this study, it was inferred that Hampshire and Large White Yorkshire pigs gain significantly higher body weight than the Mizo local pigs under field conditions in Mizoram.

Kathleen Jenks (2007) on her essay Pigs in History, Religion, Culture, and Art states that the pig has a long history of connection with humans. The paper discusses the properties of pork and states that it contains protein, fat, niacin, zinc, phosphorus, and other crucial minerals.

S. Rahaman et. al. (2008) studied the production and management system followed by the farmers in Mizoram which was concentrated in Aizawl. The study revealed the traditional method of feeding kitchen waste. They also used either traditional or allopathic medicines to deworm the pigs. The study also found that the pigs are marketed at the age of 1 year when they gained a bodyweight of 90 kg or more.

A. Kumaresan, et. al. (2009) studied the production system of 320 rural pig rearing households in northeast India. The study found that the majority of the pigs are reared in the intensive system and fed with homemade cooked feed (kitchen waste and locally available plants). It was also found that the smallholder resource-driven pig production is economically viable and sustainable at the household level and there is enough scope to improve the smallholder resource-driven pig production system.

Moneylife Digital Team, 2013 states that, Milk, meat, and egg consumption in India are rising much faster than that of cereals. Not surprisingly, 37% of agricultural output growth between 2005 and 2011 came from animal products.

Organization for Economic Co-operation and Development, Food and Agriculture Organisation (FAO) stated that the Global meat production rose just over 1percent in 2013, led by growth in pig and sheep meat, but slower growth in bovine meat and poultry. Growth in poultry meat production at 0.5percent was the slowest in at least the last twenty years. It reflects not only the impact of high feed prices which persisted in the first half of the year but also falling production in China, following consumer reaction to its H7N9 avian influenza outbreak. The United States and Canada have been coping with an outbreak of the Porcine Epidemic Diarrhoea virus (PEDv), which has also reduced pig meat supplies.

B. Lalremruati (Marty Boitlung) in her article "Satalh leh zawrhna" published in Vanglaini Newspaper, VOL-XXX No.148 dated 27th June 2015, wrote that cleanliness is one of the important factors in determining the living standard of a locality or a town or state. It is commendable to observe a great pace of development in maintaining cleanliness in our society. We have noticed the mode and method of treatment and sale of meats in the developed countries through the television network. It would be a great contribution had we adopt these methods of treating and selling meat in our society. Even if only two vendors of meat of this standard is in place, it would spread in a blink of time. It would be an important initiative if either the Government or any NGO arranges an awareness campaign so that the general public may consume clean and hygienic meats. The Government must set a ceiling for sale of various meats to ensure development in the standard slaughtering and sale of meats.

1.4 Objectives of the study:

1. To study the demographic profile of the respondents.
2. To study meat's purchase and consumption pattern of the households.
3. To study the relation between income and meat consumption.
4. To provide suggestions for the improvement of meat consumption.

1.5 Hypothesis

      H_O There is no significant relationship between income and consumption of meat

1.6 Research Methodology:

Sample: A sample of 200 households was selected randomly from the Southern Aizawl region. A convenient random sampling method was employed.

Field data collection tool(s): Interviews along with questionnaires were held with most of the respondent household heads as far as possible. Some of the interviews gave information that was not included in the questionnaire and very much useful in the analysis and interpretation also.

Analysis: SPSS was extensively employed for the analysis and interpretation. Frequencies, pie charts, and correlation were the tools and techniques for the analysis.

1.7 Limitations:

1. The State Government/Institutions/ any other agencies have not conducted an extensive survey on meat production and the demand for consumption. The only available source is the Integrated Sample Survey, conducted by the State Government.
2. The study on this project is confined to a particular locality only. The study is not exhaustive to the extent that it does not include an important aspect of meat production and its consumption. Had the study cover a larger area, it could have depicted a more reliable source of reference.
3. The study on this project is limited to a few questionnaires. It does not include the aspect of the import of livestock. The Integrated Sample Survey reflected in the Economic Survey of Mizoram, 2014-15 on demand gap of major livestock products highlighted that production could not meet the demand for meat consumption.
4. No exhaustive study has been conducted; there are no facts and figures for reference. The trend of meat production during five years as per the integrated sample survey is increasing.
5. The study on this project is conducted only for the prevailing situation and with a little reference over the years. The trend analysis or future projection of meat consumption is not included in the study.
6. There is no research on meat consumption of an individual with reference to the recommendations of the Indian Council of Medical Research in a particular locality.

AIZAWL SOUTH HOUSEHOLDS AND ITS MEAT CONSUMPTION

2.1 DIFFERENT KINDS OF MEAT CONSUMPTION

Pork: Pork is the culinary name for meat from the domestic pig (Sus domesticus). It is the most commonly consumed meat worldwide (FAO, 2012), with evidence of pig husbandry dating back to 5000 BC. Pork is eaten both freshly cooked and preserved. The flesh of pigs is the most popular meat amongst the meat under the study area. The income from pigs accounts for about 50% of total family income in the remote areas of the northeast region of India. In North-East India, most of the pigs were reared in intensive system and fed with homemade cooked feed (kitchen waste and locally available plants) (Kumaresan, 2009).

Beef: Beef is the culinary name for meat from bovines, especially cattle. Beef has gotten a bad rap in recent years. Many people have chosen to cut meat out of their diets entirely. While it is true that some cuts of beef are high in saturated fat, beef also has a lot of nutritional value. Beef, eaten in moderation is an excellent source of protein, protein being an essential component of any diet. It is also rich in many vitamins including vitamins B12, B6, riboflavin, thiamine, and pantothenic acid. Although fat is an essential part of any diet, too much-saturated animal fat can contribute to a whole host of health problems

Chicken: Chicken meat is greatly accepted by consumers worldwide as compared to other meat consumption. The increase of chicken meat consumption is due to the versatility of the meat, relatively low cost in comparison to other meat, the acceptance of the chicken meat to all religions and the increase in the household income. Chicken is a common ingredient in many recipes because it is high in protein and tastes great. Not all chicken meat is alike. The truth is that certain cuts of chicken meat are much healthier than others. Besides, fried chicken or chicken prepared with lots of oil, sugar or other fatty ingredients pack a lot of calories.

Mutton: Mutton, the meat from adult sheep, provides a more gamey alternative to standard beef or pork. We can use mutton as we would use pork or beef, and some options are mutton stew and roast mutton. The meat is rich in a variety of minerals and vitamins, but it contains more fat than very lean cuts of beef. In moderation, mutton can be a beneficial component in an overall healthy diet.

Fish: Fish is a food of excellent nutritional value, providing high-quality protein and a wide variety of vitamins and minerals. Its protein, like that of meat, is easily digestible and favorably complements dietary protein provided by cereals and legumes that are typically consumed in many developing countries. Fish can have a significant positive impact on improving the quality of dietary protein by complementing the essential amino acids that are often present in low quantities in vegetable-based diets. Fish oils in fatty fish are the richest source of a type of fat that is vital to normal brain development in unborn babies and infants. Without adequate amounts of these fatty acids, normal brain development does not take place (Food and Agriculture Organisation)

DATA ANALYSIS AND INTERPRETATION

This chapter shows the data fed from the questionnaire, which are quantified and tabulated to give meaningful interpretation regarding the meat consumption of households in Aizawl South area.

Table no.3 Occupation of household respondents

Source	Percentage
Business	18.0
Government job	58.0
Private company	16.0
Daily wage earner	6.0
Other	2.0

Total	100.0

Source: Sample data

Table no. 3 depicted that 58 percent are government employees, followed by business with 18 percent, the respondents have their own stalls and retail shops and are more or less fully engaged in such activities. Private company at 16 percent, daily wage earner at 6 percent and any other with only 2 percent.

Table no.4 Household income of the respondents

Monthly Income	Percentage
5001-10000	2.0
100001-15000	4.0
15001-20000	10.0
20001-30000	22.0
30001-50000	24.0
50001-100000	28.0
100001-250000	4.0
250001-above	6.0
Total	100.0

Source: Sample data

The study observed the income level of the respondents, since the purchasing power are influenced by their income. Accordingly, Table no.4 shows the range of households monthly income by the respondents in the study. The sample households with monthly income of Rs.50,001 to Rs.100,000 has the largest percentage at 28 percent, followed by Rs.30,000 to Rs.50,001 with 24 percent, Rs.20,001 to Rs.30,000 with 22 percent, Rs.15,001 to Rs.20,000 with 10 percent, Rs.2,50,001 and above with 4 percent and Rs.1,00,001 to Rs.2,50,000 with 4 percent.
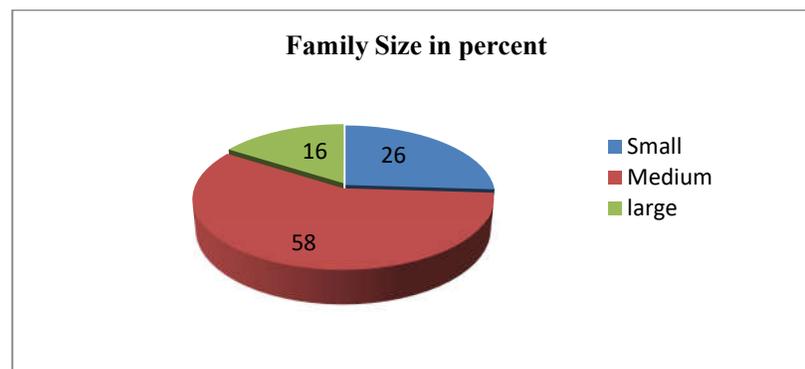
Figure 2

Figure 2, pie-chart indicates that among the 200 households, small-sized family with 1 to 4 members constitutes 26 percent, majority of the household was a medium-sized family with 5 to 8 members constituting 58 percent and Large-sized family with above 8 members constitutes 16 percent. According to Martin Khan (2006), the family plays an important part in the influence of consumer behavior, its size is a significant determinant.

Table no.5 Reason for the consumption of meat

Reason	Percentage
Taste	48.0
Habituated	34.0
Demand by children	8.0
Price	2.0

Nutritional quality	8.0
Total	100.0

Source: Sample data

The factors contributing to the consumption of meat were preset for the respondents to select such as taste, habituation, both demand by children and nutritional quality and price. The responding aspects of consumers' preference for meat consumption are presented in the table given above. Table no. 5 shows that taste is the highest factor at 48 percent which is the main reason for the preference of a particular type of meat followed by habituation at 34 percent. Demand by children and nutritional quality both constitute 8 percent and price with 1 percent.

Table no.6 Weekly Purchase frequency of meat

Purchase frequency	Percentage
Thrice a week	16.0
Twice a week	56.0
Once a week	28.0
Total	100.0

Source: Sample Data

It can be seen from table no.6 that, 56 percent of households purchase meat twice a week. 28 percent of the households purchase meat once a week and 16 percent of the households purchase thrice a week. This could be due to the occupational background of the respondents. Also, buying meat in the Saturday market is a common practice among Mizo people.

Table no.7 Point of purchase among households

Source	Percentage
Butcher i trust	60.0
Supermarket	2.0
Any butcher	28.0
Modern meat shop	10.0
Total	100.0

Source: Sample Data

It can be observed from table no.7 that, 60 percent of the households purchase meat from the butcher they trust or are familiar with. These households may tend to associate the quality of meat-based on their familiarities with the butchers. 28 percent of the households purchase meat from any butcher, 10 percent for modern meat shop and 2 percent of meat are purchased from a supermarket

Table no.8 Awareness about the nutritive value of meat

Awareness	Percentage
Known	66.0
Not known	34.0
Total	100.0

Source: Sample data

Table no. 8 also reveals that, 66 percent of the sample households are aware of the nutritive value of meat. Not being aware of the nutritive value of meat consists of 34 percent which is less than 50 percent of the total sample households. The amount of meat in people's diets has an impact on human

health as well. Moderate consumption of meat could be a good source of protein and important vitamins and nutrients such as iron, zinc, and vitamins B3, B6 and B12.

Table no.9 Unavailability of meat

Availability	Percentage
Never	28.0
Sometimes	72.0
Total	100.0

Source: Sample Data

Table no. 9 shows the response of households where 72 percent of the households sometimes have difficulties purchasing the meat they want. This may be due to the insufficient production of meat or due to low-quality meat production. 28 percent of the households never find any difficulties when it comes to purchasing the meat they want.

Table no.10 decreasing your meat consumption in the future

Preference	Percentage
Yes	38.0
No	20.0
Can't say	42.0
Total	100.0

Source: Sample Data

Table no. 10 revealed that 38 percent of the households would want to decrease their meat consumption which could be due to health reasons and price. 20 percent of the households would not like to decrease their meat consumption as most of the people are consuming meat mainly due to taste and habituation. 42 percent of the households are uncertain whether they would like to decrease their meat consumption because habituation plays a large role in meat consumption.

Table no.11 differed choice in the family effects quantity of buying meat

Quantity of meat affected by choice	Percentage
Yes	60.0
No	40.0
Total	100.0

Source: Sample Data

The table no. 11 indicates that the amount of meat consumption by more than 50 percent of the households is influenced by their choice of meat (60 percent). The quantity of meat consumed by the remaining 40 percent of the households is not influenced by their preference.

Table no.12 Awareness about problems of meat

Awareness	Percentage
Known	92.0
Not known	8.0
Total	100.0

Source: Sample Data

As shown in the table no. 12, it is observed that 92 percent of the total households are aware of the problems or diseases associated with consumption of meat whereas 8 percent of the households are not aware of it. Although moderate consumption of meat and animal products may be health-

promoting, excessive meat consumption contributes to a wide array of health issues, such as cancer and diabetes.

Table no.13 Problems faced by respondents

Problem	Percentage
None	20.0
Diabetes	20.0
Hypertension	16.0
Neuro problem	8.0
Diabetes and neuro problem	12.0
All	24.0
Total	100.0

Source: Sample data

The study shows that among the meat consumers there was 24 percent who faces problems like diabetes, hypertension and neuro problems. The sample also represents that 20 percent are having a diabetic problem. The study also finds that there was 20 percent of the respondents do not face any of the problems. It also shows that 16 percent of the respondents were facing hypertension problems with the consumption of meat, 12 percent facing both diabetic and neuro problems and 8 percent of the respondents have to attend to mantle neurological problems on consuming certain meat as shown in Table no. 13
.

Table no.14 Satisfaction regarding the pricing of meat

Satisfaction	Percentage
Yes	32.0
No	68.0
Total	100.0

Source: Sample data

The study tries to find out whether the household respondents are satisfied regarding the pricing of various meats. It can be observed that 68 percent of them are not satisfied and 32 percent are satisfied regarding the pricing of meat as seen in table no 14.

Table no.15 Satisfaction regarding the quality of meat

Satisfaction	Percentage
Yes	34.0
No	66.0
Total	100.0

Source: Sample data

It can be seen from the table no 15 that, 66 percent of the household respondents are not satisfied with the quality of meat. The household respondents being satisfied with the quality of meat consists of 34 percent.

Table no.16 Preference to increase your meat consumption in the future

Preference	Percentage
Yes	2.0
No	72.0
Can't say	26.0
Total	100.0

Source: Sample Data

It can be observed from the Table no. 16 that 72 percent of the households would not like to increase their meat consumption and 26 percent are uncertain whether they would increase or decrease their meat consumption. Only 2 percent of the household respondents would like to increase their meat consumption.

Table no.17 Average weekly meat consumption

Pork	Beef	Chicken	Mutton	Fish
1.51	.9500	.8500	.1800	.8800

Source: Sample data

Table no.17 shows the average weekly consumption of different meat in kilograms. The average weekly consumption of pork is 1.51 kgs followed by beef with .95 kgs, fish with .88 kgs, chicken with .85 kgs and mutton with only .18 kgs

Table 18 Relation between income and consumption of meat

		Income	Pork	Beef	Chicken	Fish	Mutton
Income	Pearson Correlation	1	.267	.345	.260[*]	-.120	.197[**]
	Sig. (2-tailed)		.160	.952	.026	.285	.004
	N	200	200	200	200	200	200
Pork	Pearson Correlation	.267	1	.348[**]	.044	.022	-.094
	Sig. (2-tailed)	.160		.000	.614	.800	.284
	N	200	200	200	200	200	200
Beef	Pearson Correlation	.345	.348[**]	1	-.077	-.059	.017
	Sig. (2-tailed)	.952	.000		.379	.499	.846
	N	200	200	200	200	200	200
Chicken	Pearson Correlation	.260[*]	.044	-.077	1	.779[**]	-.081
	Sig. (2-tailed)	.026	.614	.379		.000	.354
	N	200	200	200	200	200	200
Fish	Pearson Correlation	-.120	.022	-.059	.779[**]	1	-.103
	Sig. (2-tailed)	.285	.800	.499	.000		.240
	N	200	200	200	200	200	200
Mutton	Pearson Correlation	.197[**]	.375	.017	-.081	-.103	1
	Sig. (2-tailed)	.004	.000	.846	.354	.240	
	N	200	200	200	200	200	200

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).
Source: Sample Data

As seen in table no. 18 there is a significant relationship between income and consumption of pork as the correlation of pork shows the value of (R= .267), which is a positive correlation, and indicates that there is a low relation of the income and the consumption of pork. Though pork is the most favored meat amongst the other, the sample data shows that the relation with the income categories does not

affect the level of consumption, where we can conclude by saying that each household would buy or consume meat irrespective of their income. The contributing factor that arises while interviewing the household is that they have been akin to the habit of having pork at least at weekends which is also culture-bound.

The consumption of beef counts the second highest in the study area, and Pearson's correlation value is (R= .345) showing a positive but low relation to the income category. This indicates that people in the area do buy and consume beef and will tend to buy irrespective of variation in their income. Therefore, it may be inferred that there is a significant relationship between income and consumption of beef.

The correlation between chicken consumption and income level is (R=.026) which is very low but positively related. It is likely that, there will not much be variation in the demand for chicken even if there are changes in the income. It is therefore clear that, there is a significant relationship between income and consumption of chicken.

There is a significant negative relationship between income and consumption of fish. As the correlation of fish with the income level results at (R=-.120) which shows negative relation.

There is also significant relationship between income and consumption of mutton, the pearson's correlation value is (R= .197), a positive and very low though. This shows that the responding mutton consumers do buys it not because of their income and often they buy it on occasions too. Some people buy it and consume it on religious grounds.

SUMMARY OF FINDINGS, SUGGESTIONS AND CONCLUSION
FINDINGS:

To find out the meat purchase factors of the study area, several predetermined variables were addressed in the questionnaire. From the analysis, it was found that 48 percent of the households have been consuming meat because of taste, 34 percent have claimed that it is their habituation to eating meat that led them to buy meat and there are also some small factors like demand by family members, nutritional quality and price to add their reason for meat purchase. Income is one major factor concerned with the amount of purchase. It was also found that the majority of the respondents at 82 percent have bought meat from their local market which is less than 1 kilometer. Thus, the local market is enough to serve the respondent's demands in the type of meat they want and not in the quantity and quality expected.

The data shows that 66 percent of the respondents are aware of the nutritive value of meat and 34 percent are unaware of the value of meat they consumed. It was also found that the average number of family members eating meat was 6, and 56 percent of the households purchase meat two times a week, and 28 percent once, and 16 percent thrice in a week. The data also shows that pork is the most favored meat amongst the people, and 60 percent claims it to be their favorite meat, and their average weekly consumption counts 1.51 kgs. Beef at .95 kgs and chicken at .85 kgs fish .88kgs and mutton at .18 respectively. One surprise finding was that fish is consumed more than chicken. This could be one reason that there are many people with hypertension and diabetic problems resulting in large fish consumption as being suggested by physicians and reference as well.

An attempt was made to find out the problems faced by the people in the study area. The data shows that among the meat consumers there was 24 percent who faced problems like diabetes, hypertension and neuro problems. The sample also represents that 20 percent are having diabetic problems. The study also finds that there was 20 percent of the respondents do not face any of the problems. It also shows that 16 percent of the respondents were facing hypertension problems with the consumption of meat, 12 percent facing both diabetic and neuro problems and 8 percent of the respondents have to attend to mantle neurological problems on consuming certain meat. From the responses, while interviewing, people find difficulty in finding the meat they wanted at times they wish they could eat.

There is an unorganized market and the quality of meat is more or less uncertified, this is the resulting cause of low supply to meet the demand of the people.

SUGGESTIONS:
1. To evolve a systematic approach in getting hygiene meat, enactment of Act, Rules, and Regulations is necessary. These should not be only put in place but should be implemented properly to ensure positive results.
2. The integrated Sample Survey on the estimation of Annual Production of milk, eggs and meat 2018-2019 conducted by Animal Husbandry and Veterinary Department reported that there is no private registered slaughtered house. It is necessary to establish private registered slaughter houses. Important locations to ensure the supply of healthy and hygienic meat and regulated meat market.
3. Mizoram as the whole state is not self-sufficient in meat production. It has to import livestock from neighboring states and neighboring countries as well. There are no quarantine centers. Lack of quarantine centers could lead to an undesirable epidemic. To ensure the sale of healthy meat, the establishment of quarantine centers is necessary, especially near the interstate borders.
4. Production of the quality of livestock could not meet the market demand. Domestic animals particularly pigs are feed with imported ingredients from other states. The import of feeds from other states is very costly. It is necessary to identify local resources that can provide a cheaper substitute for conventional concentrate feed.
5. Sale of meat at the roadside should be prohibited immediately. A proper market for the sale of meat could have been established at important locations to ensure the sale of healthy meat.
6. A good number of teams comprising of doctors/experts could have been constituted to check the health condition of meat to be sold in all the markets.
7. More of the awareness in the development and increase of livestock is necessary.

CONCLUSION:
From the study, though it was a small sample and representing a very little fraction of the State, it is assumed that the other city areas would have more or less similar attributes. The people have a high value for meat and give lots of importance to meat too. Many suffered from diseases and difficulties that are inculcated from the consumption of meat, the responses of the sample shows that many have the habit of eating a large amount of meat and are unaware of the problems that can arise out of meat consumption, then, later, when they realized that they have to take control of the consumption which they often find it to be hard. There is a very low supply of the livestock which is very unfortunate, while there are many unemployment problems of the youth, there needs to be a serious awareness of the status of supply and demand in general so that they will be motivated to take up opportunities in the field, profiting the individuals and the nation as well. Media awareness of the attributes like nutrition and effects of meat consumption could have been largely organized at the Local and National levels. The consumption of meat is akin to the culture and will be, so it is necessary to have hygienic and healthy meat at all times. It is not only the Government that must take action, but the people also have a responsibility to this matter and contribute to increase and improve the meat and supply of such.

BIBLIOGRAPHY

BOOKS
Banerjee, G. C. (1998), "A textbook of Animal Husbandry", Oxford & IBH Publishing Co. Pvt. Ltd., Kolkata
Kenneth F. Kiple, Kriemhild Coneè Ornelas (2001), "The Cambridge World History of Foods", Vol. 1, published by the press syndicate of the University of Cambridge, pg. 537
Kumaresan A., Bujarbaruah K.M., Pathak K.A, Anubrata, Das (2006), "Swine Production in Mizoram", Ambikagirinagar Path, R.G. Baruah Road, Guwahati

Mizoram Economic Survey (2014-2015), Directorate of Economics and Statistics, Government of Mizoram, pg.53-54

Ram Ahuja (2010), "Research Methods", Prem Rawat for Publications, Jawahar Nagar, Jaipur, pg.425-426

JOURNALS

Kumaresan, A., Bujarbaruah, K.M., Pathak, K.A., Anubrata, Das (2006), 'Performance of pigs reared under traditional tribal low input production system and chemical composition of nonconventional tropical plants used as pig feed', *Livestock Science*, Vol. 107, pg.294–298

Rahaman, S. (2007), 'Adoption of improved technologies by the pig farmers of Aizawl district of Mizoram, India', *Livestock Research for Rural Development*, Vol. 19, No. 1.

Rahman, S., Barthakur, S., and G. Kalita.(2008), 'Pig production and management system in Aizawl District of Mizoram, India'. *Livestock Research for Rural Development*. Vol. 20, No. 9.

Maikhuri, R. K. (1992), 'Eco-energetic analysis of animal husbandry in traditional societies of India', *Energy*, Vol. 17, No. 10, pg. 959-967.

Kumaresan, A., Bujarbaruah, K.M., Pathak, K.A., Anubrata, Das (2006), 'Performance of pigs reared under traditional tribal low input production system and chemical composition of nonconventional tropical plants used as pig feed', *Livestock Science*, Vol. 107, pg.294–298.

WEBSITES

http://www.newkerala.com/states-of-india/mizoram.php#.VWNJ70M5GvE

http://www.telegraphindia.com/1100414/jsp/northeast/story_12334764.jsp

http://www.historyforkids.org/learn/economy/pigs.htm

http://www.moneylife.in/article/meat-and-eggs-consumption-growing-in-india-than-milk-cereals/34854.html

http://www.fao.org/ag/againfo/themes/en/meat/background.html

http://e-archive.bnionline.net/index.php/feature/khonumthung/2836-shortage-of-meat-in Mizoram.html

http://www.st.nmfs.gov/st1/fus/us04/08 perita2004.pdf

http://www.chinadaily.com.cn/opinion/2014-04/28/content_17469248.htmhttp://www.kpubs.org/article/articleMain.kpubs?articleANo=CSSPBQ_2014_v34n4_507

http://www.kpubs.org/article/articleMain.kpubs?articleANo=CSSPBQ_2014_v34n4_507

http://www.academia.edu/2678207/MEAT_CONSUMPTION_P_T_CONSUMPTION_P_T_CONSUMPTION_PATTERN_IN_HYDERABAD_CITY_TTERN_IN_HYDERABAD_CITY

B. Lalremruati (Marty Boitlung), "Satalh leh zawrhna" published in Vanglaini Newspaper, VOL-XXX No.148 dated 27th June 2015