



# A Study Employment and Income: Special Reference to Piggery Practices in Mizoram

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## 1.1 Introduction

The report of the 11<sup>th</sup> 5year Plan of the Planning Commission of India has clearly reported that Livestock sector is an important sub-sector of the agriculture in Indian economy. This sector also forms an important livelihood activity for most of the farmers, supporting agriculture in the form of critical inputs, contributing to the health and nutrition of the household, supplementing incomes, offering employment opportunities, and finally being a dependable source of income in times of need. It acts as a supplementary and complementary source of income. Livestock is also important as a part of agriculture diversification and income enhancement. The Government of India is aware of these attributions, thus it gives crucial importance to it. India's livestock sector is one of the largest in the world, in 2010-11 livestock generated outputs worth Rs. 2,075 billion (at 2004-05 prices) which comprises of 4 percent of the GDP and 26 percent of the agricultural GDP. The total output worth was higher than the value of food grains.<sup>1</sup>. Developing schemes and missions, government also pays due importance to the livestock sector since this sector have dominated integral component of India's agricultural and rural economy since time immemorial. Livestock have deep connections to other agriculture products as they possess the ability to supply energy for crop production in terms of draught power and organic manure, and in turn deriving their own energy requirements from crop byproducts and residues. The advances in bio-chemical and mechanical technologies, however, have weakened the synergy between livestock and crops. Livestock are now more valued as source of food and contribute over one-fourth to the agricultural gross domestic product and engage about 9 percent of the agricultural labour force. The livestock sector has been growing faster than crop sector; however, in recent

<sup>1</sup> Report of the working group on animal husbandry & dairying 12<sup>th</sup> five year plan (2012-17), GOI.

years, the growth both in livestock production and productivity has decelerated considerably (Taneja, 2012)<sup>2</sup> on addition the Government of India Ministry of Agriculture Department of Animal Husbandry, Dairying & Fisheries clearly laid down the National Livestock Policy<sup>3</sup> 2013, for the development of livestock which includes pig production.

The state per capita income is estimated at Rs.85, 356 while the national per capita income for the corresponding period was estimated at Rs.88, 533/-(Economic Survey 2015-16). A farmer will generate income through the activities of selling litters, meat servicing etc. . Thus, employment is generated by the production of swine. Those farms who are engaged merely on the rearing of swine are more or less self-employed generating income. From the data it can be seen that there are a number of educated respondents who are engaged with the production. This indicates that educated people are also involved in the economic activities through quality farming and utilising the Government policies.

## 1.2 Objective

The present study has the following objectives

- To provide proper outline of the income generated from piggery in Mizoram
- To analyze development of piggery farming in selected area.

## 1.3 Literature Review

According to the Indian Council of Agricultural Research (ICAR), 40 percent of the country's pig population spreads within the North East Region (NER). The culture and the inhabitants of Mizoram do have pig as their favourite meat like those of the other parts of the NER. Piggery or pig farming is an important activity in Mizoram. There are many statements and quote in reference to pork and pigs when written about Mizoram and its culture.

The farmers who keep the pigs are mostly practising in a form of part time or back yard convenience rearers, keeping the pigs to salvage their kitchen waste and to add up the income of the family at the time of slaughter. Along with beef, pork is one of the favorite dishes of Mizo people. Pig is the most important livestock in the state and plays a major role in the livelihood of the small farmers.

Animal agriculture is a crucial element in the national economy as well as in the socio economic development in a developing country like India, where majority of the population engaged their life in agriculture, and thus, generating gainful employment in the rural and sub urban areas Suri, (2012). The livestock sector in India contributes to nearly 32 percent of total agricultural output. India with 2.3 percent share of global geographical area supports nearly 20 percent of the livestock population of the World. India has the largest livestock population in the world. Agriculture is the main source of income of the common

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<sup>2</sup> *The Vice-Chancellor of Guru Angad Dev Veterinary and Animal Sciences University – Dr. V K Taneja Preface, Report of the working group on animal husbandry & dairying 12<sup>th</sup> five year plan (2012-17)*

<sup>3</sup> *NATIONAL LIVESTOCK POLICY, 2013 Government of India Ministry of Agriculture Department of Animal Husbandry, Dairying & Fisheries*

people; livestock is a sub sector of agriculture. Pig farming is one vital element of the farmer's economic activity in the North Eastern region in India. In India, The NEER has a sizeable population of pig i.e. around 24 percent of the total pig population in India. It has been estimated that around 50 percent of the country's pork is consumed in north eastern hill region alone. According to Kumaresan et al, (2008) Mizoram has been lacking the supply of sufficient quantity live swine within its premises. Pork is the most favourite meat amongst the Mizo, eventually the rise in population and economy increases in the demand as well. There are very few people who have entered the farming of pigs in comparing to the population as a whole to tap the demand which is ever rising. This is infact very true especially in the current scenario. People in the market have to often stand in long line to purchase their share of meat i.e, pork. This is a clear indicator of the low supply of life pig.

Animals do indulge a vital role in mountainous farming system of Northeast India for improving livelihood and subsequently adding the nutritional security of resource poor people, as the majority of this area population is dominated by mono cropping and crop failure very often pushes the farmer's economy at verge of collapse (Kumaresan *et al.* 2006). The inhabitant of this region is tribal who are mostly non-vegetarian and hence, the demand for meat is very high. Pork is the mostly meat eaten in this region; in state like Mizoram, contribution of pork to the total meat consumed is as high as 71 percent. Among the meat-producing animals, pig occupies a unique position in the region, as pig keeping has a special bond to the culture and the livelihood of tribal people of the region (Das and Bujarbaruah: 2005). This region is of the lowest per capita income in the Country and like other resource poor areas (Lemke et al. 2006), the share of household income derived from pig is high.

Pig farming is one of the sources of cash income for the subsistence farmers as well as determines family's purchasing power because of unprofitable "Jhum" cultivation practice. The records of the Animal Husbandry and Veterinary Department indicate the popularity and importance of the swine in Mizoram. Rearing of animals has an important role in this hilly state as crop production is still traditional. Pork is the favourite meat among the Mizos, amongst the livestock, pig is most important and every family rears pig as backyard venture.

#### **1.4 Research Methodology**

The present study is based on primary and secondary data. Primary data was collected through questionnaires method and the secondary data was collected from reports, articles, and research papers published by different scholars. The study is grounded with interview schedule employed to the livestock farmers of the three select districts of Mizoram viz., Aizawl, Kolasib and Lunglei.

The study also selected sample population by using simple random sampling method; the selected three districts of Mizoram were on the basis of representative population of livestock population.

## 1.5 Result and Discussion

### 1.5.1 Employment

Modern-day pig production is less about managing pigs than it is about managing people. When farms were small, the owner provided the labour. Because of their vested interests, owners were highly motivated to ensure that work got accomplished in a timely and effective manner. Doing the work themselves, owner-workers did not have to rely much on the efforts of others. As swine operations have grown in size they have increasingly become dependent upon hired labour. The following table highlight the employment generation among the selected sample respondents.

**Table 1: Employment generation in the farm**

<i>Employment</i>			District			Total
			Aizawl	Lunglei	Kolasib	
<i>Employed others</i>	Count		7	5	5	17
	% Within Sample		41.2%	29.4%	29.4%	100.0%
	% Within District		3.6%	2.5%	2.5%	2.9%
<i>Did not employ others</i>	Count		188	194	194	576
	% Within Sample		32.6%	33.7%	33.7%	100.0%
	% Within District		96.4%	97.5%	97.5%	97.1%
<b>Total</b>		Count	195	199	199	593
		% Within Sample	32.9%	33.6%	33.6%	100.0%
		% Within District	100.0%	100.0%	100.0%	100.0%

**Source:** Sample survey

Table 1 show that the employment generated status of the sample. The data shows that only 2.9 percent of the farmers from the three districts have generated employment opportunities. All the three districts have minimal generation of employment as a whole. It also can be inferred that there are three aspects of employment. Firstly, majority of the farmers own their farm and land. The resulting factor to this is that most of the farms are small scale and less space necessary for the construction of the sties. There are also farmers who own the farm and land but rearing is not only for income generation. This is carried out due to cultural tradition of rearing one or two pigs generally to feed with the kitchen waste. Often these pigs are kept only for substitution of their unprofitable crop farming which in turn increases the buying power of the people, thus, improving the economic activities.

The second category could be the large farms. Though there are very few farms in the state which can employ workers paying them salaries. The number of large farms is very less in the state while there is of great opportunity to fill in the supply gap by the large farms and also generating higher employment.

Lastly there is another group of employment who finds opportunity in the market. This group consist of the butchers, brokers or retailers, though there are some farmers in the rural and sub urban area that slaughter and

sells the meat by themselves. In the city where meat consumption is higher in comparison to rural, the production around the cities is not enough to tap the demand. So the need for finding the market is filled in by brokers or retailers who will venture around and fetch the live pigs from the villages to be sold to the city.

The Pearson correlation indicate calculated value of ( $r=0.206$ ) shows the positively correlation between income from pig farming and educational level. Thus it can be concluded that the literacy level affects the income level of the pig farmers in the state. From the population more than average number of farmers has lower level of education, but when higher level educated people get engagement in pig production sector, there is a much prospect of rising the swine production as well as income with higher education.

### 1.5.2 Income and Qualification of Respondents in Aizawl District

The following Table 2 shows that income generated from pig and the educational qualification of the farmers in Aizawl district. The data shows that there are 114 farmers from Aizawl district who had not passed their matriculation, the table also shows that out of this educational level, there are 70.2 percent whose family are termed as poor as their income level is below Rs. 50,000 per annum. 28.1 percent are having middle level income i.e., between Rs. 50,001 and 2.5 lakhs, lastly 1.8 percent who are well to do whose income is higher than 2.5 lakhs. It was also observed from that data that there are good numbers of respondents who have passed their matriculation (58 respondents). The table also shows that there are very less number of respondents who have passed their post graduate degree, and along with this there are minimal farmers with their graduation at 6 and 4 farmers respectively.

**Table 2: Income wise: Educational qualification: Aizawl District**

			Income			Total
			Poor	Middle	Well to do	
<b>Educational Qualification</b>	<i>Illiterate</i>	<i>Count</i>	5	1	0	6
		% Within Sample	83.3%	16.7%	0.0%	100.0%
	<i>Under Matric</i>	<i>Count</i>	80	32	2	114
		% Within Sample	70.2%	28.1%	1.8%	100.0%
	<i>Matric</i>	<i>Count</i>	32	23	3	58
		% Within Sample	55.2%	39.7%	5.2%	100.0%
	<i>Intermediate</i>	<i>Count</i>	5	2	0	7
		% Within Sample	71.4%	28.6%	0.0%	100.0%
	<i>Graduate</i>	<i>Count</i>	2	3	1	6
		% Within Sample	33.3%	50.0%	16.7%	100.0%
	<i>Post Graduate</i>	<i>Count</i>	3	1	0	4
		% Within Sample	75.0%	25.0%	0.0%	100.0%
	<b>Total</b>	<i>Count</i>	127	62	6	195
		% Within Sample	65.1%	31.8%	3.1%	100.0%

Source: Sample Survey

### 1.5.3 Income and Qualification of Respondents in Lunglei District

The data shows that Lunglei District pig farmers were also majorite by the under matric educational level farmers (124 respondents). Under which there are 81.5 percent whose income category are less than Rs. 50000 per annum and 28.1percent between rs. 50,001 and Rs. 2.5 lakhs and lastly 1.8 percent have income higher than Rs.2.5 Lakh. There are 58 respondents who have passed matriculation, represented by 55.2 percent income category are less than Rs. 50000 per annum and 39.7 percent between Rs. 50,001 and Rs. 2.5lakhs and lastly 5.2 percent have income higher than Rs.2.5lakhs. From table 2.6(a) it can be seen that majority of the farmers have their basic education but the contributions made by farmers with other educational level holders are very minimal where there are 6 respondents who have graduated and 4 farmers having post graduate degree. It can also be concluded that farmers at Lunglei District are mostly having basic education but have not fulfilled their matriculation level education.

**Table 3: Income wise: Educational qualification: Lunglei**

			Income Category			Total
			Poor	Middle	Well to do	
<b>Educational Qualification</b>	<i>Illiterate</i>	<i>Count</i>	6	1	0	7
		<i>% Within Sample</i>	85.7%	14.3%	0.0%	100.0%
	<i>Under Matric</i>	<i>Count</i>	101	22	1	124
		<i>% Within Sample</i>	81.5%	17.7%	.8%	100.0%
	<i>Matric</i>	<i>Count</i>	22	19	0	41
		<i>% Within Sample</i>	53.7%	46.3%	0.0%	100.0%
	<i>Intermediate</i>	<i>Count</i>	5	5	0	10
		<i>% Within Sample</i>	50.0%	50.0%	0.0%	100.0%
	<i>Graduate</i>	<i>Count</i>	9	7	0	16
		<i>% Within Sample</i>	56.3%	43.8%	0.0%	100.0%
	<i>Post Graduate</i>	<i>Count</i>	1	0	0	1
		<i>% Within Sample</i>	100.0%	0.0%	0.0%	100.0%
	<b>Total</b>	<i>Count</i>	144	54	1	199
		<i>% Within Sample</i>	72.4%	27.1%	.5%	100.0%

Source: Sample Survey

#### 1.5.4 Income and Qualification of Respondents in Kolasib District

Like other Districts, Kolasib also shows similar data where majority of the farmers are below matriculation in their education. There are 123 farmers who are below matriculation, there are very less farmers with other qualification.

The following table clearly highlighted that there are 67.5 per cent whose income category are less than Rs. 50000 per annum and 32.5 per cent between Rs.50,001 and Rs.2.5 lakhs. There are 54 respondents who have passed matriculation, represented by 29.2 per cent income category are less than Rs. 50000 per annum and 68.5 per cent between Rs.50, 001 and Rs.2.5lakhs and lastly 1.9 per cent have income higher than Rs.2.5lakhs.

From following table it can be identify that majority of the farmers have their basic education but the contributions made by farmers with other educational level holders are very minimal where there are 6 respondents who have graduated and 4 farmers having post graduate degree. It can also be concluded that farmers at Kolasib District are mostly having basic education but have not fulfilled their matriculation level education.

**Table 4: Cross tabulation of Income Category and Educational qualification.**

			Income Category			Total
			Poor	Middle	Well to do	
Educational Qualification	Illiterate	Count	11	3	0	14
		% Within Sample	78.6%	21.4%	0.0%	100.0%
	Under Matric	Count	264	94	3	361
		% Within Sample	73.1%	26.0%	.8%	100.0%
	Matric	Count	70	79	4	153
		% Within Sample	45.8%	51.6%	2.6%	100.0%
	Intermediate	Count	14	11	0	25
		% Within Sample	56.0%	44.0%	0.0%	100.0%
	Graduate	Count	12	19	1	32
		% Within Sample	37.5%	59.4%	3.1%	100.0%
	Post Graduate	Count	5	3	0	8
		% Within Sample	62.5%	37.5%	0.0%	100.0%
	Total	Count	376	209	8	593
		% Within Sample	63.4%	35.2%	1.3%	100.0%

**Source:** Sample Survey

From the above table it can be seen that majority of the farmers have their basic education but the contributions made by farmers with other educational level holders are very minimal where there are 6 respondents who have graduated and 4 farmers having post graduate degree. It can also be concluded that farmers at Kolasib District are mostly having basic education but have not fulfilled their matriculation level education.

## 1.6 Conclusion

Among the various livestock species in Mizoram, piggery is most potential source of meat production and more efficient feed converters after the broiler. From the above data it can be concluded that pig farming will provide employment opportunities to seasonally employed rural farmers and supplementary income to improve their living standards. The individual level efforts have very little effects. Thus the intervention of the Govt, be it central or have played an important role in many ways. It is thus important to understand the level of influences and impact that the Govt actually played. The following chapter will have a study and analyze some of the policies and schemes of the Government.



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