# Priority Fixation of Livestock Farming in Border Areas of Assam with Bangladesh

## Liakot Hussain[1], K. K. Saharia[2], M.N. Ray[3] and L. Bora[4]

1. MVSc Student, 2&3 Professors, 4. Asstt. Prof., Deptt of Ext. Edu., CVSc, AAU, Khanapara, Guwahati, Assam

Corresponding author e-mail: *saharia.kk@gmail.com*

## ABSTRACT

*A study in the Indo Bangladesh Border areas of Assam was carried out with a two phased data collection procedure in order to know the socio-economic standing of the animal husbandry farmers, their preference of livestock farming and strategic planning for animal husbandry after counseling. A pre-tested, reliable and valid interview schedule was used for data collection. Data were collected meeting the respondents personally by the researcher. After proper data analysis, it was found that the respondents were in general of middle aged of about 46 years with middle level of education, having family size of about 5-6 members and preferring service as their primary occupation. Family's average income was above Rs. one lakh per year and about one sixth was the income from animal husbandry; whereas own income was almost the rests. They reared about 4.4 livestock units (in terms of equivalent cattle units), keeping good care and spending a time of more than three hours a day. their labour engagement pattern, communication and exposure to information sources were moderate but risk orientation and economic motivation were higher. People in general preferred to rear cattle, followed by poultry chicken and duck. After counseling, however, for strategic farming, the respondents preferred broiler farming followed by beef cattle production, dairy cattle production. In spite of being the over dominated religious minority population, a good number of them showed positive inclination towards pig farming. The whole study in totality gave a picture that the people were eager, enthusiastic and energetic to develop in terms of animal husbandry. They also could see that with the development in animal husbandry, many of their problems would be over.*

*Key words: Priority; Border areas; Socio-economic status; Strategic livestock farming; Preference;*

In a vast country like India, the fact that policy decisions are made universal itself invites many questions including the probable success of ventures in the years to come. The centrally made policies are then transmitted to the different parts and when they come for implementation, many problems arise at the same time. After some time especially when the turn for responding to the queries comes, for success there would be many claimants whereas in case of a failure the blame game starts. At the end, however it is the target people for whom the whole programmes are framed out, they get deprived of and ultimately suffer. Actually, in a country like ours the plans and projects should be people, place and period specific. Likewise in different states also depending upon the emotions, ethnicity and ethnocentrism; developmental plans should

be made in such a way so that the stakeholders feel them to be their own, they thrive for such steps and give their all out efforts to make the project, plan or programme a grand success. Actually, no success should be considered as an isolated endeavor, spread of success stories is phenomenal, prolific and profound. One simple and small success in a community may lead far reaching subsequent successes in many places and thereby making the nation resounding, richer and respectful. It is under such understanding that even in Assam the plans relating to animal husbandry, one feels, should be very much linked to the capabilities, capacities and capitals of the common people. In the animal husbandry sector also there have been many plans and projects not only launched but also much resources have been put over the years. But the expected results have not been

obtained. The sporadic successes here and there have not been able to mobilize the community for any generous endeavor. Understandable it is not a simple issue when the different tribes, territories and temperament need different events and occurrences for solace and satisfaction. But, for the betterment of the place and people at least some areas of animal husbandry, which are very near and dear to the farming communities in rural areas including the international; borders in Bangladesh can be planned. Therefore, "priority fixation of livestock farming in border areas of Assam with Bangladesh"was planned with the following objectives:

i. To study the socio-economic status of the livestock farmers in the areas of Assam- Bangladesh border.

ii. To work out the priority of different types of animals reared by the farmers

iii. Priority for strategic livestock if provisioned.

## METHODOLOGY

For the study the villages adjacent to Indo-Bangladesh International border areas of South Salmara, Mankachar Sub Division of Dhubri District has been selected on account of the land lock condition of the area where agricultural and animal husbandry productions were enormous against virtually no scope for better merchandizing in addition to many other associated problems. Further, because of being border area, it was commonly thought that the animal husbandry practices might be in negligible state; which was not the fact in reality. The study was conducted in the three villages adjacent to Indo-Bangladesh International Border of of Assam. The three selected villages were Mankachar, Kukurmara and Kamarpara out of the total of fifteen such villages in Dhubri District, Assam. Thirty six farmers having at least one yielding cattle/buffalo in those selected villages were selected randomly from each of the villages making the sample size of 108. A pre-tested, reliable and valid interview schedule was used for data collection by the researcher personally in two phases and the responses were collected on the interview schedule comprising of independent (consisting of personal, socio-economic and psychological variables) and dependent (priorities of animals reared and to be reared) variables. During the first phase of data collection the respondent's spontaneous responses were collected while in the second phase, the respondents were briefed about the different problems

and provisions of livestock farming and asked if all facilities were provided, what livestock farming they would like to strategically pursue. Based on the data collected and the results obtained, the findings were expressed and conclusions were drawn.

## RESULTS AND DISCUSSION

*Socio-economic status of the livestock farmers :* A perusal of the data presented in Table 1 indicated that almost 67.59 per cent of the total respondents fell in the middle group of age (from 36 to 56years) in the pooled sample followed by the young age group (from 35 years) and by the high age group (from 57 years). This was due to the fact that in the whole state as well as in the area under study, people took up animal husbandry or farming as source of livelihood only around the marriageable age, which was again a matter falling around thirty plus minus five years or so in general. The present finding was in agreement with *Gour (2002), Paincra et al. (2010)* and *Shyam (2011)* and *Johari (2013)* where majority of the respondents fell in the middle age group.

When categorization was done on the basis of mean and standard deviation the pooled sample revealed that 43.52 per cent of the respondents had medium level of education status. It was deplorable to note that the mean value of education was 3.62, which indicated that on an average the respondents were educated to the extent of around high school standards only. A large number of them (43.52%) occupied the medium category of academic achievements. Similar result was found by *Rahman (2011)* reported that majority of the respondents was having medium education level. Whereas, contradictory results had been found by *Mandal and De (2010),* where 26.67 per cent of the respondents were having higher school (10+2) level of education.

It was seen from the table 1 that, large majority i.e. 81.48 per cent of the respondents were having medium sized family where average family size was 5.51. The finding could be a good signal considering the fact that the family size across the border was much higher as no family planning devices were adopted there. Thanks to the recent efforts made by the Government to limit the number of children per family. This finding was relevant to the finding of *Chucha (2004), Avinashilingam et al (2007), Saikia (2007), Akand and Borgohain (2010)* and *Payeng (2011).*

**Table 1. Status of the respondents on the basis of their socio-personal scores**

| Traits | Mean | SD | Range | Low | Medium | High |
|---|---|---|---|---|---|---|
| Age | 46.43 | 10.70 | 28-75 | 18(16.67)≤35 | 73(67.59) 36-56 | 17(15.74) ≥57 |
| Education | 3.62 | 2.1 | 1-7 | 21(19.44)≤1 | 47(43.52) 2-4 | 40(37.04) ≥57 |
| Family size | 5.51 | 2.76 | 2-19 | 04(03.70)≤2 | 88(81.48) 3-7 | 16(14.82) ≥57 |
| Occupation | 5.79 | 0.72 | 4-9 | 07(06.48)≤5 | 73(67.6) 5.1-5.9 | 28(25.92) ≥6 |
| Family income (in thousand) | 110972.2 | 69369.18 | 24-50 | 09(08.30)≤41.603 | 84(77.78) 42-179 | 15(13.89) ≥180341 |
| Income (A.H) (in thousand) | 18740.74 | 2865.77 | 1.5-270 | 70(64.81)≤15.874 | 16(14.81)15873-21.605 | 22(20.39) ≥21606 |
| Own income (in thousand) | 94017.59 | 69981.85 | 15-460 | 03(02.78)≤24.035 | 91(84.26) 24.034-163.998 | 14(12.96) ≥163999 |
| Livestock unit | 4.4 | 2.43 | 1-15 | 12(11.11)≤1.97 | 83(76.85)1.98-6.82 | 13(25.12) ≥6.83 |
| Rearing system | 10.05 | 6.6 | 2-41 | 11(10.19)≤3 | 79(73.14) 4-15 | 18(16.67) ≥16 |
| Time devoted to A.H | 186.44 | 78.35 | 80-575 | 13(12.04)≤108 | 82(75.92) 109-263 | 13(12.04) ≥264 |
| Labor pattern | 8.06 | 1.78 | 2-9 | 26(24.08)≤6 | 0(0) 7-8 | 82(75.92) ≥9 |
| Communication | 4.7 | 0.7 | 2-5 | 19(17.6) ≤4 | 0 4.1-4.9 | 89(82.40) ≥5 |
| Exposure to informational source | 4.52 | 2.32 | 2-15 | 01(00.92)≤2 | 80(74.08) 3-5 | 27(25.00) ≥6 |
| Risk orientation | 23.74 | 0.85 | 19-24 | 10(09.26)≤22 | 2(1.85) 23 | 96(88.89) ≥24 |
| Economic motivation | 20.13 | 0.89 | 16-23 | 06(05.56)≤19 | 86(79.62) 20 | 16(14.82) ≥21 |

A glance at the Table 1 showed that average occupational score was 5.79 out of the total obtainable score of 12 in six different areas of occupation. In an agri-based society as high as 76.6 per cent of the respondents obtaining medium category of occupation was quite healthy looking into the constrained conditions the farmers had in the area of investigation. The result denoted that all farmers also had something or other as their secondary source of income. It could be said that more or less similar results were found by *Karpagam (2000)* where majority (71.66%) of the respondents were agriculturist, *Nagesh (2005)* reported that majority (55%) of the respondents practiced agriculture alone. *Shyam (2011)* also reported that majority to the tune of 69 per cent of the respondents' fell in medium category of occupation.

The data obtained in this regard revealed that the average total annual family income of the respondents was Rs.1,10,972/- per year and as high as 77.78 per cent of the respondents attained the medium category of frequency distribution having an earning of Rs. 42,000 to Rs.1,79,000 per year. This income pattern gave an idea about the fact that the farmers in the area under study were not very affluent. This again might be due

to the landlocked condition of the area from where the marketing of their produces were always a matter of Herculean nature. The results were similar to that of study of *Chucha (2004)* who also worked in a situation of landlocked condition and found that 78.67 per cent of the respondent's family income ranged between Rs. 69,223 and Rs 1, 25,350. Similar was the results of *Haque (2012).* But the results were much better to *Paincra et al. (2010)* who observed that large proportion (49.17%) of the farmers were having annual income of up to Rs 30000/-.

A perusal of Table 1 indicated that average annual income of the respondents from livestock was Rs.18, 740.74. Majority (64.81%) of the respondents had low level of annual income from their livestock. This was largely because of two reasons. First, the respondents were yet to take up livestock rearing commercially. Second, because of the self sufficiency of the area, people were skeptical about the marketing of their livestock produces. Some additional factors of other natures being responsible for such kind of an outcome could not be ruled out. The finding was more or less similar to *Talukdar (2012).*

A perusal of Table 1 indicated that average own

annual income of the respondents was Rs. 94,017.59/- per year. Majority of the respondents had medium level of annual income from his or her own earning ranging from Rs, 24,034/ to Rs.1,63,999/. Considering the facts that they were self sufficient in almost all essential matters/needs the result could not be considered deplorable. Similar findings were also reported by *Mandal and De (2010).*

As reported in Table 1, overwhelming majority that is 80 per cent of the respondents had maintained medium herd size (approx. 2-7 cattle units). This was again due to non acceptance of livestock as commercial venture on one hand and adoption of nuclear family on the other hand. *Kumar et al (2007)* also found similar results while contradictory results were observed by *Misra and Pal (2003).*

Table 1 further revealed that as high as 83.33 per cent of the respondents reared their livestock in intensive system whereas, 12.04 per cent and 4.63 per cent reared in semi intensive and in extensive/scavenging respectively. This was mainly to keep the animals away from the clutches of thieves and the miscreants, which were rampant in the area of study. The findings were similar to the findings of *Baruah (2013).*

It was revealed from the table 1 that fairly large majority (75.92%) of the respondents devoted medium duration of time to animal husbandry practices i.e 109-263 minutes whereas, the remaining respondents devoted 108 minutes or less and 264 minutes or more time to animal husbandry practices. The livestock were their proud possessions. So they wanted to keep their animals healthy and clean. This finding was similar to *Gogoi (2005)* who found that farmers gave 2-3 hours in backyard farming of livestock.

It was depicted that large majority of the respondents (75.92%) had high labour engagement pattern and the rest 24.08 per cent had low labor engagement pattern. It was mainly due to their intensive agricultural climate. This finding kept parity with research works of *Baruah (2013)* and *Gogoi (2005)*

From the table it could be seen that in case of communication the respondents used to have average 4.7 times of communication in a year and they in good number fell in the high group (82.4%) of communication categories. This finding was similar to *Pigato, (2001)* and Chaudhury *(2013).*

In case of exposure to information sources, it could be seen from the table 1 that, on average, it was 4.5 times a year and majority of them fell in the medium category (74.08%) of exposure. This might be due to their small land lock area where things relating to different practices were followed by mass followers. Similar findings were also recorded by *Mishra and Pal (2003)* and *Chaudhury (2013).*

Taking risk in farming practices is an essential part of day to day business provided such farms are commercially oriented and the farmers are making a permanent and primary livelihood out of it. But the area under investigation was far from such a situation. Still the average risk orientation score for the respondents was 23.74 with large majority of them (88.89%) occupied the higher risk orientation category indicating the fact that they were willing to take risk for further improvement. Similar findings were also reported by *Baruah (2013), Paincra et al. (2010)* and *Talukdar (2012).*

Large majority (79.62%) of the respondents possessed medium level of economic motivation. The mean of the economic motivation score was 20.13 out of the total obtainable score of maximum 23, which was quite healthy. This was an indication that the appreciation of the economic motivation areas by the respondents in highest level. This might be treated as a good signal for the future planning and programme implementation. Farmers having good economic motivation were also reported by *Khan et al. (2004)* and *Mishra et al (2009)*
*Preference of livestock :* A glance in the Table 2 revealed that the cattle were highly preferred (33.91%) among the various farm animals. Poultry-chicken was

**Table 2. Distribution of respondents on the basis of their preference of different livestock in various degrees**

| Species | Highly preferred | Moderately preferred | Lowly preferred | Not preferred |
|---|---|---|---|---|
| Cattle | 79 (33.91) | 24 (10.30) | 1 (0.43) | - |
| Buffalo | 5 (2.15) | - | - | 3 (1.29) |
| Sheep | - | 10 (4.29) | - | 3 (1.29) |
| Goat | 2 (0.86) | - | - | 2 (0.85) |
| Poultry -Duck | 10 (4.29) | 7 (3.00) | 1 (0.43) | 2 (0.85) |
| Poultry -Chicken | 43 (18.46) | 37 (15.88) | 4 (1.72) | - |

(Figures in the parenthesis indicate percentage)

the next popular frequency (18.46%) with another 15.88 per cent respondents showing moderate preference to poultry ducks. Only 1.72 per cent respondents showed low preference to poultry chicken. In case of buffalo, sheep, goat and poultry duck response pattern of respondents were 2.15 per cent respondents in highly preferred degree, 4.29 per cent respondents in moderately preferred degree, 0.86 per cent in highly preferred degree and 4.29 per cent in highly preferred degree respectively. These findings were mainly governed by their traditional mode of keeping livestock. Because of the land lock condition their horizon was limited to making things and commodities sufficient for themselves not for any other purpose. Meghalaya was nearby their location, but they hardly thought of sending their produce to the state. So was the case with Bangladesh. As such there was a necessity to reorient them to look livestock rearing from altogether a different angle, where organized, integrated and commercial farming could help them reaping maximum benefits. Similar findings were also reported by *Baruah (2013)* in the same area *Zadeng (2012)* in *Mizoram and Imchen (2014)* in the state of Nagaland.

*Preference for strategic livestock farming:* It could be seen from the Table 3 that the after motivational orientations were given, there were some change in their response pattern on livestock farming. First of all it indicated that, with proper extension approaches the respondents could be directed to adopt better farming practices including livestock farming. In fact the farmers were in the border areas and as such they faced many

**Table 3. Distribution of respondents on the basis of their priority of strategic livestock farming**

| Species | Highly preferred | Moderately preferred | Lowly preferred | Not preferred |
|---|---|---|---|---|
| Dairy | 60 (10.79) | 12 (2.16) | 3 (0.54) | - |
| Beef cattle | 86 (15.47) | 14 (2.52) | | |
| Buffalo | 15 (2.70) | 55 (9.89) | - | 3 (0.54) |
| Pig | 26 (4.68) | 18 (3.24) | 7 (1.26) | 45 (8.09) |
| Sheep | - | 8 (1.44) | - | 3 (0.54) |
| Goat | 2 (0.36) | - | - | 12 (2.16) |
| Poultry-Duck | 43 (7.73) | 37 (6.65) | 5 (0.90) | 2 (0.36) |
| Broiler chicken | 88 (15.83) | 12 (2.16) | | - |

(Figures in the parenthesis indicate percentage)

problems from the miscreants from across the border, which have frustrated them. In view of that they needed some strategic livestock farming. It could be seen from the table that highest percentage of farmers (15.83%) opined for broiler chicken farming in highly preferred degree. Poultry farming (broiler) was growing popularity in the area of study and as such the farmers putting their likeness was understandable. A similar kind of opinion was also reported by *Hazarika (2012)* in the border areas of Arunachal Pradesh in her study. That was followed by production of beef cattle (15.47%). Actually in the area of study beef was extremely popular because of majority of the people in that area following such religious order where beef was relished. Further, next to their place, Meghalaya was situated and there also beef was a popular meat. Beef cattle production was also favoured in the study of *Baruah (2013)*. After those dairy cattle getting major support was understandable, as milk as commodity was always required and it had a steady market. This finding received support from the research of *Roy et al (2006)* and *Talukdar (2012)*. The surprise was however, the strategic support for pig farming by 4.68 per cent in highly preferred degree. It was a surprise and when further queries were made, the farmers said that pig was having high demand in Meghalaya on one hand and there was no threat of pig lifting by miscreants from across the border on the other hand. Pig whatever they favoured was aimed at two aspects – it would be exported and the waste agricultural produces would be brought to good conversion and productivity by the farmers through pig rearing. Similar finding was also reported by *Payeng (2011)*.

## CONCLUSION

The respondents were in general of middle aged of about 46 years with middle level of education, having family size of about 5-6 members and preferring service as their primary occupation. Family's average income was above Rs. one lakh per year and about one sixth was the income from animal husbandry; whereas own income was almost the rests. They reared about 4.4 livestock units (in terms of equivalent cattle units), keeping good care and spending a time of more than three hours a day. their labour engagement pattern, communication and exposure to information sources were moderate but risk orientation and economic

motivation were higher. People in general preferred to rear cattle, followed by poultry chicken and duck. After counseling, however, for strategic farming, the respondents preferred broiler farming followed by beef cattle production, dairy cattle production. In spite of being the over dominated religious minority population, a good number of them showed positive inclination towards pig farming. The whole study in totality gave a picture that the people were eager, enthusiastic and energetic to develop in terms of animal husbandry. They also could see that with the development in animal husbandry, many of their problems would be over.

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