

Pig rearing and its marketing system adopted by the Rabha community of Assam

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ABSTRACT

The present study was conducted in Kamrup and Goalpara districts of Assam where majority of the Rabha population resides. One hundred fifty pig farmers from each district belonging to the Rabha tribe, rearing at least two number of pigs, were selected. The study revealed that 91.00 % of farmers reared 2-6 pigs, earning an average annual income of Rs.49670.00±2484.26 from piggery. The share of piggery to the total income of farmer was 47.89 %. About 73.00 % of these farmers marketed their pigs at the age of 6 months and above, followed by as pork (14.33 %), and as piglet (12.67 %). The average age of pigs at the time of marketing was found to be 234.98±4.7 days with an average sale price of Rs.3560.33±14.50, Rs.13834.00±326.00 and Rs.313.53±1.22 for piglet, adult pig and pork (per kg), respectively. About 39.33 % reported lack of finances as the major constraint faced in rearing and marketing of pigs, followed by lack of availability of quality feed (28.00 %), exploitation by middleman or agent (12.00 %), inadequate veterinary facilities (10.00 %), disease outbreak or mortality of animals (6.00 %), non availability of quality animals (2.67 %), lack of technical and market knowledge (1.67 %) and inadequate marketing facilities (0.33 %). A total of 74.33 % of the pig farmers sold their pigs directly to agents or wholesaler, 20 % sold locally on social occasion or to local customers and 5.67 % sold directly to market. Majority of the farmers (51.00 %) bought their piglets from the local market, followed by local farms (40.33 %), agents or wholesaler (6.33 %) and government farms (2.33 %). Urgency of money (58.00 %), followed by appropriate weight gain or getting the right price (21.67 %), social occasions (17.33 %) and occurrence of diseases (3.00 %) were the major reasons for selling the pigs.

Keywords: Constraints, Income, Marketing, Piggery, Piglet, Pork, Tribal farmers

Pig husbandry is one of the most significant livestock enterprises among the tribal communities of Northeast India (Banik *et al.* 2020) and contributes notably to the food security, employment and livelihoods of the tribal farmers. Assam possesses highest pig population in the country (20th Livestock Census, Department of Animal Husbandry and Dairying, 2019), mirroring the cultural preference for pork and the economic importance of pig farming in the state. Among the indigenous tribes of Assam, the Rabha community is considered as one of the most significant tribes having a long-standing, rich and intricate tradition of rearing pigs and food habits with a deep-rooted interest for pork.

Despite its socio-economic and cultural significance, pig rearing in the Rabha community is predominantly practiced under traditional management systems with small herd sizes, limited scientific interventions and unorganized marketing structures. Farmers' primary dependence on local traders or middlemen for the purchase and sale of pigs,

inadequate access to quality breeding stock, feed resources, veterinary services and market knowledge limits the profitability and growth of the enterprise. Understanding the existing production and marketing practices, income generated from piggery and the constraints faced by farmers is essential for developing suitable interventions to improve productivity and market efficiency.

Although several studies on production practices, marketing behaviour and socio-economic contribution of piggery have been reported in different regions of Northeast India, information on the same among the Rabha tribal farmers of Assam remains limited. Therefore, the present study was undertaken to assess the herd size and income generated from piggery, document the prevailing marketing practices including age and form of sale, sale prices, sources of buying and selling pigs, identify the major constraints faced by farmers in pig rearing and marketing, and understand the reasons influencing the sale of pigs. The findings are expected to provide baseline information for formulating strategies to strengthen sustainable pig production and improve the livelihoods of the Rabha tribal farming community.

MATERIALS AND METHODS

The study was conducted in Kamrup and Goalpara districts of Assam falling under the administration of the

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Rabha Hasong Autonomous Council. One fifty farmers from each district having minimum two numbers of pigs were selected making a total of three hundred farmers. The data was collected personally through door to door survey with the help of a reliable and valid interview schedule specially prepared for it. The data collected were compiled, tabulated and analyzed to determine the herd size, annual income, market age of pigs, common marketing form of pigs, sale price of piglet, adult pig and pork, constraints faced by the farmers in rearing and marketing of pigs, common source for buying and selling piglets and pigs, and farmers' reasons for selling pigs using statistical methods

viz. frequency, percentage, means, standard error and range.

RESULTS AND DISCUSSION

Herd size: About 91.00 % of the farmers reared 2-6 numbers of pigs and only 9.00 % farmers reared more than 6 pigs, with an average herd size of 3.66 ± 0.18 (Table 1). This could be due to financial constraints and inclination of farmers to take up piggery as a subsidiary occupation. The findings are in line with Singh *et al.* (2019) who reported that majority of pig farmers (63.75%) maintained 5-7 number of pigs in tribal farming communities of Manipur.

Table 1. Parameters of pig farmers of Assam belonging to the Rabha tribe
Total no. of farmers under study= 300

Sl. No.	Parameters	Category	n	%
1.	Herd size	2-6 pigs	273	91
		More than 6 pigs	27	9
		Mean $\pm$ SE= 3.66 $\pm$ 0.18		
2.	Average annual income (Rs.)	Category	Range	Mean $\pm$ SE
		Total annual income of farmers	10000-400000	103700.00 $\pm$ 3180.84
		Annual income of farmers from piggery	14000-320000	49670.00 $\pm$ 2484.26
		Share of piggery to the total income of farmer (percent)	47.89	
3.	Average age of pigs at marketing (days)	Mean $\pm$ SE= 234.98 $\pm$ 4.71		
4.	Common form of pig marketing	Category	n	%
		Live pig of 6 months and above	219	73.00
		pork	43	14.33
		piglet	38	12.67
5.	Average sale price (Rs.)	Category	Mean $\pm$ SE	
		piglet	3560.33 $\pm$ 14.50	
		Adult pig	13834.00 $\pm$ 326.00	
		pork	313.53 $\pm$ 1.22	
6.	Constraints faced by farmers during rearing and marketing	Category	n	
		Lack of availability of quality feed nearby	84	
		Non availability of quality animals	8	
		Inadequate marketing facilities	1	
		Exploitation by middleman/agent	36	
		Lack of technical and market knowledge	5	
		Disease outbreak/ mortality of animals	18	
		Lack of finances for purchasing of new animals, feed, building pig sty/farm etc.	118	
7.	Reasons for selling pigs	Inadequate veterinary facilities	30	
		Categories	n	
		Weight gain/right price	65	
		Urgency of money	174	
		Occurrence of disease	9	
		Social occasions	52	

Table 1 Contd...

Table 1 concluded

Sl. No.	Parameters	Category	n	%
8	Common source of selling pigs	Categories	n	
		Locally on social occasion/ local customer	60	
		Directly to market	17	
		To agent/ wholesaler	223	
9.	Common source for buying piglets	Categories	n	
		Local market	153	
		Local pig rearer/ local farm	121	
		Government farm	7	
		Agent/wholesaler	19	

Tochhawng *et al.* (2013) reported similar findings from their study that 47.78% of the pig farmers had small herd size of 1-3 pigs in tribal areas of Mizoram. Roy *et al.* (2026) observed that farmers from Dindori and Mandla districts of Madhya Pradesh had pig herd sizes of 4.66 and 3.22 pigs per household, respectively.

Annual income: The average annual income of the farmers was Rs.103700.00±3180.84 while average annual income from piggery alone was found to be Rs.49670.00±2484.26. The share of piggery to the total income of farmer was 47.89 % (Table 1). The total annual income in the present study reflected that the income of the farmers mainly relied on agriculture and its allied activities, including piggery. The findings are also in agreement with Johari (2013) who found average annual income of farmer to be Rs. 1,75,800. Payeng (2013) reported similar total average annual income from piggery as Rs. 54,650 and the contribution of piggery in total annual income of farmer to be 46.31 %. Shyam *et al.* (2017) observed that the contribution of backyard pig farming to the total annual income was 46.09 percent when family labour was involved. Karthiga *et al.* (2020) found that the annual income from backyard piggery contributed about 31.25 per cent to the total annual family income. Shivakumar *et al.* (2024) reported that income generation from pig farming alone contributed to approximately 52% of the household income.

Age of pigs at marketing: The average age of pigs at the time of marketing was 234.98±4.7 days (Table 1). This might be because of the reason that the farmers sold their pigs on the basis of approximate weight gain and could receive right price from the buyers during financial emergency. The findings are in agreement with Nanda *et al.* (2018) and Majunder *et al.* (2020) who observed that in unorganized farms, 100 % farmers sold their pigs at 5-7 months of age while majority of the farmers (80.56 %) in Telangana marketed their pigs at 5-7 months of age respectively.

Common form of pig marketing: Table 1 showed that majority of the farmers (73.00 %) marketed their pigs at the age of 6 months and above, followed by as pork (14.33 %), and as piglet (12.67 %). A large number of

farmers reared pigs for fattening in order to slaughter and consume or sell as meat as majority of the population was non vegetarian. These findings aligned with Shyam *et al.* (2016) who reported that 77.50 % of pig farmers sold adult live pigs. Rahman *et al.* (2008) also reported that majority of the farmers (87%) marketed their pigs at the age of 1 year or above when they reached the body weight of 90 kg or above.

Sale price of piglet, pig and pork at the time of marketing: The findings in Table 1 revealed that the average sale prices were Rs.3560.33±14.50, Rs.13834.00±326.00 and Rs.313.53±1.22 for piglet, adult pig and pork (per kg), respectively. The average age (in days) of pigs at the time of marketing was found to be 234.98±4.71. This might be because the sale prices varied depending on the financial emergency of the farmer, weight gain of the animals and local demand. The current findings were in agreement with Patra *et al.* (2014) who reported that piglets were sold directly to farmers or to local traders at Rs.2500-3500. Sharma *et al.* (2018) reported that the retail price of pork was Rs.250 per kg, while farmers sold their pigs at a price of Rs.18,500-30,000 on the basis of their size. Nanda *et al.* (2018) observed that in unorganized farms 100 % farmers sold their pigs at 50-60 kg body weight and market age was 5-7 months. Majunder *et al.* (2020) reported that majority of the farmers (80.56 %) in Telangana marketed their pigs at 5-7 months of age. Generally, piglets were sold after weaning at 8 weeks of age @ Rs 3000 each and pregnant animal @ Rs 150/ kg. Finishers were sold after achieving the weight of 80-100 kg.

Constraints faced by the farmers in rearing and marketing of pigs: From Table 1, it is evident that majority of the farmers (39.33 %) reported lack of finances as the major constraint faced in rearing and marketing of pigs, followed by lack of availability of quality feed (28.00 %), exploitation by middleman or agent (12.00 %), inadequate veterinary facilities (10.00 %), disease outbreak or mortality of animals (6.00 %), non availability of quality animals (2.67 %), lack of technical and market knowledge (1.67 %) and inadequate marketing facilities (0.33 %). This may be because the farmers in the study area mostly belonged to

economically weaker section and their livelihood mainly depended on agriculture and livestock rearing. Also due to remoteness of the area, unavailability of quality feed, inadequate veterinary facilities, non availability of quality animals contributed as other major issues faced by the farmers. Furthermore, due to their lack of awareness of market knowledge, exploitation by the middlemen or agents was also seen. Similar findings were reported by Ahmed *et al.* (2016) who revealed the major constraints of pig husbandry as lack of scientific knowledge and veterinary and extension service, lack of good breeding boar, malnutrition and non availability of vaccine. Patra *et al.* (2014) had reported that the major constraints faced by the farmers were high cost of concentrate feed (81.08 %), non availability of proper veterinary health care (72.97 %), high cost of initial inputs and lack of quality piglets (60.36 %), frequent outbreak of diseases (46.85 %), lack of availability of good breeding boar (45.95 %). The findings are in line with Jithin *et al.* (2025) who had reported that major constraints in pig farming were existence of large number of intermediaries in marketing process, high feed costs, disease outbreaks, inadequate veterinary services, lack of organized marketing channels, and limited access to credit facilities. Scarcity and poor quality of breeding boars, inadequate breeding facilities, high price of concentrates, shortage of pig feed, lack of knowledge about balanced ration, lack of capital and labour, low economic gains, non availability of medicines, inadequate knowledge about cause and control of diseases were substantial constraints in adoption of pig farming in Jharkhand as reported by Chakrabarti *et al.* (2020).

Common source of selling pigs: About 74.33 % of the pig farmers sold their pigs directly to agents (middleman) or wholesaler, 20 % sold locally on social occasion or to local customers and 5.67 % sold directly to market. The findings are in alignment with Sidhu *et al.* (2019) who reported that 98 % of the farmers sold their live animals to middleman through various channels. Shyam *et al.* (2016) reported that 52.50 % farmers sold their produce directly to the middleman, 30 % to the whole seller and 17.50 % directly to the consumer in the local markets. Suchiang *et al.* (2017) revealed that majority (72.5%) farmers sold their pigs through local traders followed by 25% through retailers and only 2.5% disposed their pigs directly to consumers. Boro *et al.* (2018) reported that 79.33 % of the pig farmers sold their pigs in the local market and only 20.67 % of them sold their pigs to the middle men from their homes while Majunder *et al.* (2021) reported that 99.31% farmers marketed their hogs through middlemen and only some pigs were slaughtered and meat was sold in the local market.

Common source for buying piglets: Table 1 revealed that majority of the farmers (51.00 %) bought their piglets from the local market, followed by local pig rearers or local farms (40.33 %), agents or wholesaler (6.33 %) and government farms (2.33 %). This may be because the piglets were easily available in the local markets, local

farms or local pig rearers. Also, the agents or wholesalers brought piglets from neighbouring districts for selling in the local markets. The findings are supported by Suchiang *et al.* (2017) who reported that 77.5 % of the farmers bought their piglets from co-farmers and 22.5 % bought from local market. Kirima *et al.* (2017) reported that a high percentage (95.2%) of the replacement stock of pigs for breeding purpose was purchased locally.

Farmers' reasons for selling pigs: The major reasons for selling pigs by the farmers (table 1) was urgency of money (58.00 %), followed by appropriate weight gain or getting the right price (21.67 %), social occasions (17.33 %) and occurrence of diseases (3.00 %). This might be because majority of the farmers belonged to the economically weaker section and reared pigs as a means of financial security and additional source of income, and sold their pigs during financial crisis or emergency. Right price and demand during social occasions were also reasons for the selling of pigs. The findings are in agreement with Patra *et al.* (2014) who reported that 69.23 % sold pigs in case of urgency of money, during special occasions or when they are unable to feed the pigs. Pait (2013) reported that majority (66.00 %) of the farmers sold their pigs because of monetary urgency, followed by social occasions (13.00 %), mature age (10.00 %), high local demand (5.00 %), weight gain and occurrence of disease (3.00 %).

The study revealed that piggery is an integral part of the livelihood of tribal farmers of the Rabha community of Assam, contributing nearly half of the total household income. Pig rearing was largely practiced on a small scale using traditional management systems, with 2–6 number of pigs as a subsidiary enterprise. Adult pigs were the most common form of marketing, and are generally sold after six months of age. The sale prices of piglets, adult pigs and pork varied considerably due to the absence of a structured pricing mechanism and marketing system. Marketing of pigs largely depended on agents and wholesalers, indicating limited direct market access for farmers. Financial emergencies surfaced as the primary reason for selling pigs, highlighting the role of piggery as a financial reserve rather than a planned commercial enterprise.

The study also identified several constraints affecting pig production and marketing, including inadequate financial resources, non-availability of quality feed and breeding stock, limited veterinary services, disease problems, poor market knowledge and exploitation by middlemen. These constraints restrict the productivity and profitability of pig farming in the study area, despite the high demand for pork.

The findings provide ground information on the socio-economic and marketing aspects of pig rearing among the farmers of the Rabha tribe, residing in rural areas of Assam. The observations can be taken into consideration to make location and community specific interventions aimed at improving access to institutional credit, quality inputs in terms of feed and germplasm, veterinary healthcare, scientific training and organized marketing facilities. Strengthening farmer cooperatives, improving

market linkages and promoting scientific pig rearing while integrating traditional knowledge can increase farmers' profitability and ensure sustainable livelihood development. Adoption of these measures will not only improve the income and resilience of tribal pig farmers but also contribute to the sustainable growth of the pig sector in Assam.

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