



Socio-economic status of pig rearers and management system of native pigs in Bangladesh

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More than 45 different ethnic groups, Christians and some Hindus are the main consumer of pork and rearers of native pigs (*Sus scrofa domesticus*) in Bangladesh. Dome the nomadic kind people are the main source of native pig to those people. The pig bought from Dome is called Dome's pig. The other type of pig locally called "Wakmandi" that has dropping mid section that differentiates it from Dome. Limited information is available regarding socio-economic status of pig rearers and the management system of native pig in Bangladesh. In this context, this study was conducted to evaluate the socio-economic status of pig rearers and the management system of native pigs in the rural areas of some selected upazilas in Mymensingh, Netrokona and Sherpur districts of Bangladesh.

The study was undertaken at randomly selected 4 villages of Haluaghat Upazila located at 25.1250°N and 90.3500°E in Mymensingh district, 7 villages of Durgapur Upazila located at 25.1250°N and 90.6875°E in Netrokona district and 3 villages of Nalitabari Upazila located at 25.0833°N and 90.1954°E in Sherpur district. Villages were selected according to density of pig population. Before collection of data, a questionnaire was prepared in accordance with objectives of the study. Later on, the questionnaire was validated against field conditions. The study was conducted from 1 to 30 September 2012, for 30 days. Pig owning households (200) from the aforementioned sites were selected randomly and interviewed. Data related to socio-economic status of pig rearers and the management system of native pig farming were collected, compiled and analyzed by using Microsoft excel 2007.

Socio-economic status of pig rearers

Age, experience and purpose: It was found that all of the native pig farmers were female (100%) with the average of

43 years of age and 17.44 years of experience in pig farming. However, men also showed great responsibilities such as providing feed, cleaning of shed, looking after the animals in pig management, slaughtering and marketing. There was only one pig per family in the studied areas. All of the native pig farmers were Christians (100%). No Hindus or Muslims were found to be involved in pig farming. Dematawewa *et al.* (2009) also reported that Hindus were rarely involved in swine farming while no Muslims were involved at all. It was evident that, rural people of the study area reared 99% Dome and 1% Wakmandi pigs. People prefer Dome pig because of faster growth rate, higher body weight, more tasty meat, and more selling price than Wakmandi. They believed that it is cost effective, available, adaptable and merely affected by diseases. It was found that 53% people were rearing pigs for business purpose and rest 31.5%, 10% and 5.5% for family, occasion and religious purposes, respectively.

Land condition: Pigs were reared mostly by poor and landless peoples (52%) followed by marginal (17.5%), medium (17.5%) and large (13%). In fact, most of the landless people of the Haluaghat, Durgapur and Nalitabari areas rear pigs to support their livelihood.

Occupation: The majorities of farmers who kept native pigs were housewives (55%) or day labor (17%) or involved in crop cultivation (13.5%), Fig. 1. These observations are comparable to the remarks made by Chiduwa *et al.* (2008) on native pig management systems reported in different regions of the world. It was also found that the majority of the farmers own other livestock species such as cattle, goat, chicken, duck and others.

Literacy level: The highest literacy level found among pig owners was Graduation (1.5%) followed by Higher Secondary Certificate (5%), Secondary School Certificate (7%), High School (31%), Primary (36%) and Illiterate (19.5%). The illiterate person also was involved in it who can sign their name only.

Income level: Pig owners were involved in different types of job. Because of that there were variations in their monthly income level. The highest monthly income level found among

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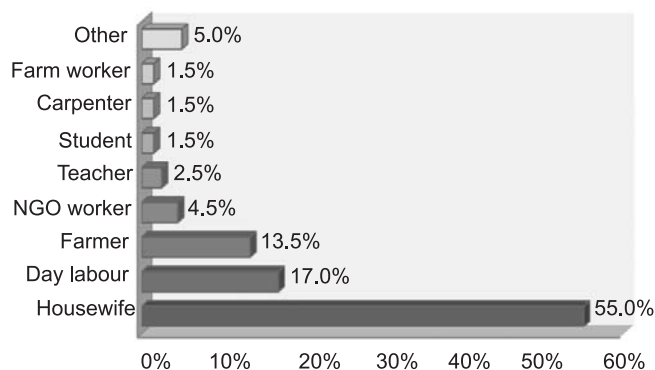


Fig. 1. Occupation of the pig owners.

pig owners was 20,000 BDT (1.5%) and the lowest was 3000 BDT (18%) (Fig. 2).

Management system

Rearing: In the studied areas, pigs were reared by girth tethering (97%) followed by straw shed housing (2%), and fencing (1%), (Fig. 3). Nomadic flock or free range system was absent at those studied areas. It was found that girth tethering was the most popular and widely used housing system where rope is used at chest girth or neck to keep the

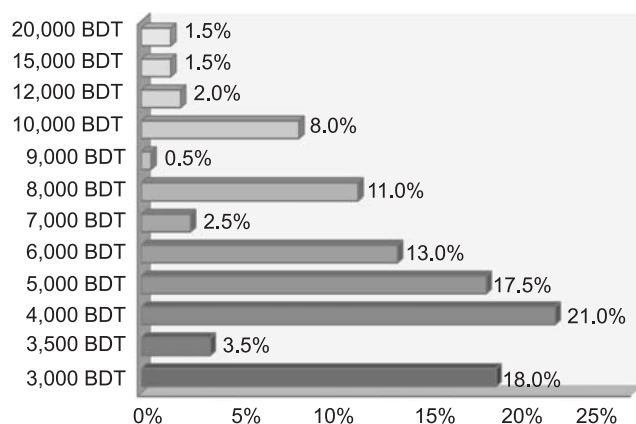


Fig. 2. Monthly income level of pig owners.

pig nearby any hard pillar such as bamboo or tree.

Sanitation: The sanitary condition of 7.5% pig owners was good but the rest 97.5% was poor. Sanitation is important to keep the pigs disease-free. A mechanism for easy cleaning and removal of waste was felt necessary for any type of pig housing. Housing in a barn and removal of manure daily are recommended to keep the floor dry to reduce odor. Proper ventilation is required to remove ammonia (NH_3), methane (CH_4) and hydrogen sulfide (H_2S) gases (King *et al.* 1998, Johnson *et al.* 2001, Moore 2002).

Feeding and watering: There was no provision for concentrate supplementation in family level pig farming. The pig owners used to supply boiled rice, rice polish, rice bran, rice husk, fermented rice and some unconventional feeds like cauliflowers, boiled arum, grass or other vegetables at the rate of 4–5 kg/day/adult pig, 2–3 kg/day/growing pig and 1–2 kg/day/piglet. Occasionally they supplied vegetables like sweet gourd, bottle gourd, sweet potato and arum to the adult pigs. Tube-well or natural reservoir was the source of water for pigs. They used to supply water at the rate of 3–4 L/day/adult pig, 2 to 2.5 L/day/growing pig and 1 L/day/piglet. Pigs were fed thrice a day. In some households, traditional pig feeder (Ringkhong) was used to feed pigs.

Diseases prevalence: In current study, most prevalent diseases were diarrhoea, coccidiosis, pneumonia and haemorrhagic septicemia. Reports indicated that abscess, botulism, bovine viral diarrhoea, brucellosis, bursitis, coccidiosis, cystic ovaries, haematoma, lameness, laminitis, listeriosis, mastitis, meningitis, metritis are common diseases for pigs (Peter *et al.* 2007). Diseased pigs could be isolated and treated (Hossain *et al.* 2011). Only 8.5% people used vaccine against haemorrhagic septicemia, anthrax, foot-and-mouth-disease and others. In case of haemorrhagic septicemia, a booster dose after 15 days of first dose could be used. The interval of two vaccinations should be 15 days (Hossain *et al.* 2011). Deworming of pigs was done by 40% people. Sometimes people used to feed pig tea waste, crabs, and some sour fruits like tamarind or chalta for deworming purpose. Albendazol could be used for deworming pigs



Fig. 3. Rearing system of native pigs.

(Hossain *et al.* 2011).

Marketing: Pig had good marketing demand at those areas. Most of the market side was home and road side hut. Farmers purchased weaned piglets from nomadic people called Dome or neighbours and started a family level farming. This is the reason why highest tendency of selling piglet was found among pig rearers. The market price of each piglet was 1000–1500 BDT at the studied areas. The price of an adult pig ranged from 15,000 to 20,000 BDT. The average pork price was 225 BDT/kg.

Advantages: It was found that rearing native pig was very easy for those people who rear and consume it. They believed that it was very cost effective, available, adaptable and merely affected by diseases.

Constraints of pig production

Malnutrition seemed the major problem in pig rearing. As a result they do not get sufficient nutrition and their productive and reproductive performance is gradually decreased. Farmers exhibited limited knowledge on pig farming which was a common scenario in the study areas. Lack of laboratory facilities, lack of medicine, expensiveness and unavailability of vaccine were other major problems in pig production. Pigs had good marketing demand but due to religious restriction, there was no established pork marketing system. The facilities regarding government extension service were totally absent.

The socio-economic status of the pig rearers is appreciable. Though there are many constraints in the management of pig, the meat from pig is the main source of protein for those people who rear and consume it. However, lack of mature breeding boars, technical knowhow and preventive health care services were noticed which need to be extended among the pig rearers in the studied areas for better livelihood and welfare of their keepers.

SUMMARY

The study was undertaken to investigate the socio-economic status of pig rearers and the management system of native pigs at the different villages of Haluaghat, Durgapur and Nalitabari upazilas in Mymensingh, Netrokona and Sherpur districts, respectively. Age, experience, rearing purpose, land condition, occupation, literacy and income status of pig owners constituted the socio-economic status. Housing, sanitation, feeding, watering, disease prevalence, vaccination, marketing, advantages and constraints of pig

rearing constituted the management system. A baseline survey was conducted to obtain the said information. A total of 200 households owning pigs were selected randomly and interviewed. All native pig farmers were female (100%) with the average 43 years of age and 17.44 years of experience. Most of the people (53%) were rearing pigs for business purpose. Pigs were reared mostly by poor and landless people (52%). The majorities of farmers were housewife (55%) or day labour (17%). The literacy level was satisfactory. The monthly income level was also investigated. Rearing systems were different and the mean figure was 97% for girth tethering. The sanitation condition was not satisfactory. The pig owners used to supply boiled rice, rice polish, rice husk, fermented rice and some unconventional feeds for pigs who were fed thrice a day. Most prevalent diseases were diarrhoea, coccidiosis, pneumonia and haemorrhagic septicemia. Easy management, adaptability, cost effectiveness and disease tolerance were the main advantages of native pig farming while malnutrition, lack of scientific knowledge, lack of veterinary and extension services were the major constraints.

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