

# LIVESTOCK PRODUCTION IN SOUTH FORE CENSUS DIVISION OF OKAPA DISTRICT IN EASTERN HIGHLANDS PROVINCE - PRESENT STATUS AND FUTURE NEEDS

S. Sivasupiramaniam<sup>1</sup>, G. Bilong<sup>2</sup> and J. Pitala<sup>3</sup>

## ABSTRACT

*A livestock production needs assessment survey conducted in the South Fore census division in Okapa District, Eastern Highlands Province revealed valuable insight into the present status and the needs, constraints and development options as perceived by farmers.*

*Seventy six per cent of the respondents owned pigs and 19% chicken while 21% did not have any livestock. The preferred livestock was chicken (73%) which was followed by ducks and goats (14%) and sheep (11%). The present status of pig and poultry production systems as revealed by the survey have been described.*

**Key words:** Livestock production needs assessment; Okapa District; preferred livestock, chicken.

## INTRODUCTION

The Okapa district in the Eastern Highlands Province was identified as a remote area lacking in most essential services and nutritionally deprived (Villegas *et al*, 1989). It was targeted for development under the Smallholder Market Access and Food Supply Project (SMAFSP).

Before designing any sustainable development programs relevant and applicable to local conditions it is essential to determine the needs, constraints and preferences as perceived by the target group. Therefore, a needs assessment survey was conducted in the South Fore census division of Okapa district which aimed to gain a better insight into the present status of livestock production and the needs, constraints and development options as perceived by farmers themselves.

This paper highlights the findings of an onfarm diagnostic survey to design an appropriate and relevant livestock development strategy for this area in line with SMAFSP objectives.

## MATERIALS AND METHODS

Ten villages from the South Fore census division of Okapa district in Eastern Highlands Province were randomly selected. From each of the ten selected villages 15% of the households were randomly selected and a questionnaire was administered. Trained interviewers visited these households and collected the information. The total number of households visited was seventy three.

## RESULTS AND DISCUSSION

### Livestock ownership

Seventy six per cent of the interviewees owned pigs, 19% chickens and 21% did not have any livestock while 16% owned both pigs and chickens. As only 14% of the respondents belong to the Seventh Day Adventists faith who are not allowed to rear pigs for religious reasons the predominance of pigs as the major livestock was not unexpected.

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- 1 Food Management Division, Department of Agriculture and Livestock, P.O. Box 417, Konedobu, NCD.
  - 2 Division of Agriculture and Livestock, Morobe Province, P.O. Box 73, Lae, Morobe Province.
  - 3 Department of Agriculture and Livestock, P.O. Box 1984, Lae, Morobe Province.

**Table 1: Mean herd structure of the pig population in South Fore**

Class	Number
Boars	0.8
Sows	1.1
Gilts	1.2
Castrates	1.0
Piglets	2.0
Total	6.1

**Pig production**

The number of pigs in South Fore is estimated to be 2,100 with a mean herd size of 6.1. The mean herd structure of this population is presented in Table 1. 90% of them are native unimproved types. Almost 90% of the pig owners are satisfied with the type of animals they own. 27% of them indicated that they have experienced heavy mortality of their pigs mainly due to intestinal parasites. 52% of the pig owners indicated that they have sold their pigs/piglets for cash during previous 12 months period. The price ranged from 20 to 100 Kina depending on the size.

Eighty five per cent of the respondents allowed their animals to free range during the day and either house them or paddock them at night, 3% housed their pigs at all time while the rest did not practice any definite management system. All of them indicated that they feed sweet potato tubers to their pigs and 62% feed kitchen refuse as well, only 20% provided other locally produced feeds which includes banana, corn, cassava and greens. All these feeds are deficient in protein and it is very unlikely that they would obtain the required protein by free ranging. Commercial stock feeds were never given to these pigs.

Fifty per cent of the respondents have not experienced any major problem with their pigs while others perceived that respiratory diseases,

internal parasites and destruction caused to gardens are the major problems.

Litter size varied from 2 to 10 (Table 2). 58% of the respondents indicated that they get 5 or 6 piglets per litter. 68% indicated that their pigs produce one litter per year, 2% said one in two years while the other 30% were not sure. The mean litter size was 7.1 piglets per sow. Based on this figure there should have been more piglets, gilts and possibly castrates in the herd. The smaller number of piglets and growing animals in the mean herd may be due to lower reproductive rates, sales of young animals, high mortality, or a feature of the way the data were collected or perhaps combination of all of these. Eight five per cent of the pig farmers wished to receive assistance to improve the productivity

**Table 2: Size of the litter produced by pigs in South Fore.**

Piglets/ litter	No. Res- pondents*	% of Total
2	1	1
3	4	5
4	9	11
5	21	27
6	24	31
7	12	15
8	6	8
9	1	1
10	1	1
<b>Total</b>	<b>79</b>	<b>100</b>

\* some respondents indicated more than one number (e.g. 5 or 6)

of the current stock through genetic improvement, although 90% of them previously indicated that they are happy with the type of pigs they currently own, but given an opportunity they would like the productivity of their stock improved. However, genetic improvement of the stock without corresponding improvement in feeding and management is not desirable. 20% requested assistance for treating diseases and internal parasites.

### Poultry production

Nineteen per cent of the respondents owned poultry (chicken). The number of chicken owned ranged from 1 to 8 with an average of 3. It is estimated that there are about 1000 chicken in South Fore. Except two, others said they would like to continue with raising chicken, and those two preferred ducks to chicken. 40% of the chicken owners had Australorp chickens which they obtained from the local vocational school while the other 60% have native birds which they have obtained from other farmers in the area.

Seventy per cent of the respondents produced chicken for home consumption only. The rest have sold 5 to 10 chickens during the previous 12 months period and the price was 5 to 6 Kina per bird. Management was almost exclusively free range and in few cases they are housed at night. No special supplementary feeding is done but occasionally kitchen refuse is given.

Respondents indicated that they got about ten chicks from a breeding hen per year and did not observe any disease in their birds. All the chicken owners expressed their desire to increase the number of birds to about 50 and would like to sell their produce locally for which they think the market exist. They sought assistance to order breeders and broilers and advice to rear them.

### Livestock Preferences

Seventy three per cent of the respondents preferred to raise chicken, 15% ducks, 14% goats and 11% sheep. Some indicated more than one species. The local people are not familiar with either goats or sheep and the low preference of these two species may partly be attributed to this. However, the high preference for chicken is a clear indication that the potential farmers are more related to low initial capital required and quicker return and perhaps ease of management.

### CONCLUSION

All surveys of this type are liable to respondent

bias and this study is no exception. However, there is no reason to believe that the respondents deliberately falsified their answers and that the information of little value. To the contrary that the data gathered furnished some valuable information that provides better insight into the present status, and the needs and development options available.

### REFERENCE

VILLIGAS, P.M., R. E. de SAGUN, J. GITAI, B. ISAACSON, T. RENAGI and G. AGODOP (1990). Smallholder Market Access and Food Supplies Project Document, Phase 3, Vol. 2, Department of Agriculture and Livestock, Konedobu, pp 5 - 20.