# Profitability of Intensifying Kampong Chicken in Relation to Village Poverty Alleviation

S.N. Jarmani<sup>1</sup> and A.G. Nataamidjaja<sup>2</sup>

<sup>1</sup>Central Research Institute for Animal Science, Bogor

ABSTRACT: A survey was carried out to evaluate the profitability of intensifying kampong chicken with several scale of ownership in Padaherang district Ciamis, West Java. Farmers having intensified Kampong chicken management were grouped into those having 100 to 200; 200 to 300; 300 to 400 and more than 600 birds. Results indicated that the average egg production was 35.47% for farmers having 100 to 200 birds for the period of 3 consecutive months. The corresponding

values for the other farmer groups were 35.55; 34.67, and 36.15%. Profitability of rearing Kampong chicken in an intensive management system was Rp. 110,066.30; Rp. 140,941.70; Rp. 201,909.50 and Rp. 565,458.75 per month for farmer groups 1, 2, 3 and 4, respectively. It was concluded that intensive management system of Kampong chicken could be considered as promising for alleviating farmers poverty in the less-developed villages.

Key Words: Intensified Management, Kampong Chicken, Profitability

#### Introduction

Kampong chickens have been raised by farmers in villages or urbans. The population is greater than the other poultry strains (laying hens or ducks; Dirien Peternakan, 1993), however the egg productivity is relatively lower. This may be due to the traditional system of management, in which the nutrient requirements predominantly supplied from the locally available feedstuffs that relatively meet the standard inadequate to requirements for broiler or laying hens. Besides, it is also as a result of long rearing and brooding period (Prasetya et al., 1985). In the traditional management system, without new castle disease (ND) vaccination, the mortality rate of the pullets may reach 90% (Litbang Pertanian, 1990). Nataamijaya (1986) reported a mortality rate of 68-100% which could be reduced to 50% if ND vaccination was given.

The demand for meat and egg originated from kampong chickens increase from year to year in line with the increasing population (Dirjen Peternakan, 1993). In the effort to anticipate the increasing demand, an integrated approach of management through intensification measures was done (Dirjen Peternakan, 1994).

This paper presents the beneficial of intensifying management system of kampong chickens in relation to the effort of alleviating farmers poverty in village or urban areas.

## Materials and Methods

An observation of kampong chicken productivity and the farmers income under an intensified management system was conducted as a part of overall survey on the intensification of kampong chicken in West Java. The survey was done by interviewing farmers and monitoring for 3 months period. Thirty two (32) farmers were chosen as respondents. They were members of the Bina Wargi farmer group in Padaherang subdistrict, Ciamis, West Java.

The data were analysed and presented in a descriptive statistics.

Under an intesified management systems, the farmers income were higher as compared to the traditional or semi-intesified management systems (Litbang Pertanian, 1990).

<sup>&</sup>lt;sup>2</sup>Research Institute for Animal Production. Bogor

Table 1. General description of the location

Parameters	Data	%
Area (km2)	144.49	100.0
- dry land area (ha)	8,044	61.4
- paddy field (ha)	6,105	38.6
Human population (people)	77,356	100.0
- Female	39,558	51.1
- Male	37,798	48.9
Working age (people) (15 - 59 years old)	51,283	100.0
Occupation (people)		
- Farmer and labor	40,663	79.3
- others (merchant, workers, retired, etc.)	10,620	20.7

Source: Ciamis in numbers (Ciamis dalam angka) 1992.

Table 2. Population and Production of poultry in Padaherang, 1992/1993

Poultry breed/	Population	Production		
strain	(birds)	eggs	meat (kg)	
Kampong chickens	149361	3488967	163642	
Laying hens	Para	-	Y	
Boiler	-	-	11578	
Ducks	11748	903317	6774	

Source: Ciamis Livestock services (Dinas Peternakan Kab. Ciamis) in Ciamis in numbers, 1992

#### Results and Discussion

General description of location and farmer group "Bina Wargi"

Padaherang subdistrict is under the administration of Ciamis district with an area of 141.49 km2. Most of the area consists of dry land area. The population is 77356 people, with a majority working as farmer or labor (Table 1), whereas the population and production of the kampong chicken are presented in Table 2.

The farmer group "Bina Wargi" was initially established as a result of the successful effort from one of the members which originally produced only once harvesting time a year, in 1985/1986. This farmer group was one among other groups that could achieve a national performance level. Forty farmers initially joined as members of this farmer group, however at present only 32 farmers are still raising kampong chickens of more than 100 birds er farmer.

Table 3 describes the performance of farmer group member.

## Management of production system

Poultry housing

In general, the members of Bina Wargi farmer group raised kampong chicken under an intensified management system using battery housing with lawn and fences around the poultry house. The fence is usually made of bamboo. The brooding and the roaster housing are located inside the fenced area. The individual cage and recording of production are used to control the chicken, to determine when to cull the unproductive hens. Besides, to improve the productivity through a close selection in order to reach a higher benefit.

## Feeds

The feed for kampong chicken in this area are usually consisted of concentrate diet mixed with rice

Table 3. Performances of farmer group member of Bina Wargi

Parameters	Data
Registered members (people)	40
Active members (people)	32
Experience within the group (years)	3 - 7
Ownership of kampong chickens (birds)	100 - 980
Primary occupation (people/%);	
- Farming	19 / 59.4
- small mechant	5 / 15.6
- retired	4 / 12.5
- Civil service	2 / 6.25
- House wife	2 / 6.25
Education (people / %);	
- without eduaction or elementary education	25 / 78.1
- Junior high	3 / 9.4
- Senior high/higher	4 / 12.5

Table 4. Average of owning Kampong chickens by members of the group

	Group I	Group II	Group III	Group IV
Number of respondents	15	11	2	4
Ownership	100 - 200	200 - 300	300 - 400	>600
Adults	173	224	334	786
Adult roasters	4	5	8	8
Young pullets	10	11	17	18
Young roasters	6	6	8	6
Young	3	21	36	37

bran and corn. The proportion of concentrate, rice bran and corn in the diet for adult chickens are 3:4:15. In average, the feed is offered at a level of 100 g/hen/day, while for the young pullets, the feed is offered unlimited. The feed is supplied by the group's shop.

## Disease control

ND vaccination is done every 4 months, integrated with vaccination of other farmers (non-members) chicken in the vicinity. The vaccination is usually given in September, January and May, by the health section of the group.

## Adult chicken requirement

The requirement for adult chickens as replacement of the culled hens is satisfied by raising the farmers own pullets or by purchasing from the breeder (Banjar subdistrict). Quarantine measures for the hens were done by the group. Some of the farmer group members have facilities for breeding purposes. The chickens showing signs of brooding are housed together with the roaster, and watered twice a day with the aim to eliminate the brooding signs and therefore starts to lay eggs. Besides, the facilities can also provide replacement stock if required.

## **Production**

Observation and monitoring for 3 months period of the respondent farmers suggested that the farmers can be divided into 4 groups as described in Table 4.

Data in Table 4 implies that farmers in each group replaced the hens from they own flock, even though replacement from other area can also be a possibility.

The average production per month from each group are presented in Table 5.

Table 5 implies that the effort of improving nutritive consumption for the farmers family has not been given a special attention. The low rate of consumption also indicates that selling one or 2 eggs may increase the farmers income. The table also indicates that egg production increases with increasing number of ownership of adult hens.

# Marketing

Egg marketing is done by the farmer group by selling to the permanent buyers who collect the eggs once a week. The marketing of culled hens is done by the group members themselves.

## Production cost and return

The production costs include those for feeds, vaccination, medicines and repairing cost of tools related to the chicken raising. The return is obtained from selling eggs and culled hens. The benefit is defined as the difference between the return and production costs. Analysis of the cost and return of the raising kampong chicken suggests that the more the chicken raised the higher the income is obtained by the farmer (Table 6).

Table 5. Average Production of eggs per month

Items	Group I	Group II	Group III	Group IV
Consumed	55	67	91	114
Sold	1764	2304	3343	8390
Hatched	22	18	40	22
Total Production	1841	2389	3474	8526
Productivity(%)	35.47	35.55	34.67	36.15

Table 6. Average of costs and return per month (rupiah)

Items	Group I	Group II	Group III	Group IV
Return	273,378.70	357,091.80	518,087.50	1,300,372.50
Production costs;				
Feeds	150,279.70	194,274.20	289,478.00	693,098.00
Vaccine	8,323.30	11,190.90	16,675.00	20,366.25
Vit/medicine	5,109.30	10,685.00	10,040.00	21,449.50
Total	163,312.40	216,150.10	316,178.00	734,913.75
Benefit	110,066.30	140,941.70	201,909.50	565,458.75

### **Conclusion and Recommendation**

Based on the results of this observation, it is concluded that raising kampong chicken under an intensified management system can be used to alleviate the poverty in villages, urban areas or in cities.

It is recommended that farmers select the chickens simply, correctly and continuously to obtain a higher productive individuals by which income can be increased.

## Acknowledgement

The authors wish to thank the Applied Agricultural Research Project (AARP) for the financial support. The helps of other colleagues are also appreciated.

## **Literature Cited**

- BPS, 1993. Ciamis in numbers (Ciamis Dalam Angka) 1992. Cabang Perwakilan Biro Pusat Statistik Kantor Statistik Kabupaten Ciamis.
- Dirjen Peternakan, 1993. Buku Statistik Peternakan 1992. Direktorat Jenderal Peternakan, Jakarta.
- Dirjen Peternakan, 1994. Pembangunan Jangka Panjang II Peternakan. Direktorat Jenderal Peternakan. Jakarta.
- Litbang Pertanian, 1990. Pemeliharaan Ayam Buras. In: Informasi Teknis Peternakan. Pusat Penelitian dan Pengembangan Peternakan. Badan Litbang Pertanian. Bogor.
- Nataamijaya, A.G. 1986. Status dan Kemungkinan Pengembangan Ayam Buras di Gunung Kidul, In: Jurnal Ilmu dan Peternakan. Balai Penelitian Ternak. Bogor
- Nataamijaya,A.G., D.Sugandi, D.Muslih, U.Kusnadi, H.Supriadi dan I.G.Ismail, 1986. Peningkatan Keragaan Ayam Buras di Daerah Transmigrasi Batumarta Sumatera Selatan. Risalah Loka Karya Pola Usahatani. Badan Litbang Pertanian Departemen Pertanian - IDRC.
- Prasetya, T., Subuharta, W. Dirdjopratomo dan M. Sabrani, 1985. Pengaruh Pemisahan Anak Ayam dari Induknya terhadap Kapasitas Produksi Telur, In: Prosiding Seminar Peternakan dan Forum Peternak Unggas dan Aneka Ternak. Pusat Penelitian dan Pengembangan Peternakan. Badan Litbang Pertanian. Bogor.