Summary and Conclusion
CHAPTER VI
SUMMARY AND CONCLUSION

The study on the CF of broiler production in the peri-urban districts of Bangalore in Karnataka has revealed various economic facets of the issue. A few interesting facts and figures that have emerged act as indicators and serve as future policy guidelines on CF to protect the interests of the farmers as well as encourage growth of the broiler industry.

The major findings of the study are summarized as follows:

1. The institutional arrangements in international, national, local firms and arrangements for sourcing inputs of independent farmers were well-defined. Poultry integrators had written contracts with the farmers for one production year, which was renewable thereafter. They had a set of criterion like water quality, ease of input supply, logistics, supervision and lifting of birds, trust-worthiness of farmers and other similar locational characteristics for choosing farmers for contract production.

2. Among contract farms, there were relatively new entrants, but most of the existing independent farms continued their poultry business.
3. Some of the integrating firms had a rewarding system to motivate farmers for best FCR. A price incentive of 10 paisa per rupee increase in the wholesale price per kg live weight was extended to farmers by some integrators.

4. Shortages of birds were viewed seriously and recovered from the bill at the prevailing market rates.

5. Broiler marketing was managed by wholesale lifters for both contract and independent farms. In the case of contract farmers, the lifters contacted the company branch office for permission slip after making the required payment. On the other hand, for the independent poultry farms, payments were made after 8-10 days of lifting. Normally the lifters pay Rs.3-5 below the reference price which is termed as ‘cutting’.

6. It was observed that 80 per cent of the respondents were literate up to high school level and no significant differences were observed in other attributes across contract and independent farm groups.

7. Crop combinations for different categories of contract farmers revealed that both subsistence and commercial crops were taken up and the highest area was under eucalyptus for large farms accounting for 44 per cent of the area and 58 per cent of respondents. Medium contract farmers also followed similar
crop combinations with eucalyptus in 36 per cent of area, followed by *ragi*, potato and sericulture. The crop combinations of independent farms had a marked difference compared to contract farms as majority of farmers (63.41%) cultivated maize in approximately 43 per cent of the area to facilitate formulation of their own poultry feed by independent farmers.

8. It was evident that the poultry house accounted for the single largest investment across all the respondents. Large integrating farmers had invested around Rs.11.35 lakhs on poultry sheds, while small farmers owned sheds worth Rs.2.16 lakhs. A majority of the respondents used coal for brooding to overcome unscheduled power failure in the rural areas and it was also a cheaper viable alternative.

9. Only 20 per cent of the respondents availed of loan and average loan amount varied between Rs.2.50 and 4.08 lakhs. The major source of loan was commercial banks and the respondents mostly utilized the loan for agricultural investments. The respondents opined that they preferred to source investments out of equity capital rather than through borrowings.

10. The total earnings of contract farmers varied directly with flock size, while for independent farms such a classification was beyond the purview of this study. The per farm earnings was the
highest among large contract farm category with Rs.6.48 lakhs, followed by independent farms (Rs.4.23 lakhs), medium contract farms (Rs.4.09 lakhs) and small contract farms (Rs.1.91 lakhs), in that order.

11. Average number of batches was the highest in the case of independent farms compared to contract producers. The production policies of the company and market conditions were the factors determining the batch length.

12. Integrating company provided inputs like cleaning supplies, DOC, feed, antibiotics, technical advice, and disease diagnostics. Farmers provided litter, whitewash, fumigation, brooding and lighting expenditure and labor management including supervision.

13. The average flock size of large integrators was 16,141 realizing Rs.77,939; medium farms with 7610 birds realized Rs.36,170, small integrators had 3,473 birds with Rs.16,830 earnings while independent farms having 7,453 birds resulted in a net return realization of Rs.55,814; the latter was comparable to the earnings by large contract producers.

14. The total fixed and variable expenditure amounted to Rs.45,350, Rs.25,958 and Rs.12,862 for large, medium and small integrators, in that order. The independent farms incurred
a total of Rs.4.13 lakhs towards production, of which feed and chick costs constituted 68 per cent and 25 per cent, respectively.

15. The per kg profits were computed for income derived exclusively from the sale of birds and also by considering income from all the three sources viz., sale of birds, gunny bags and manure. The actual net income realization from sale of birds was highest for large contract farms which was a little over one rupee, followed by independent farms (0.69), medium contract farms (0.68), and small contract farms (0.45), in that order.

16. The Cobb-Douglas analysis revealed that flock size significantly contributed to per farm poultry income for both contract and independent farms. Poultry experience significantly influenced only independent farms.

17. Income source Gini revealed that crop incomes have an unequalizing effect on household income. On the other hand, income from livestock, poultry and other sources tended to reduce inequality.

18. Although a large percentage of farmers made investments on farm improvements, the extent of income available out of CF for such a venture was only a small percentage. The income derived
out of contract poultry production accounted for 25-50 per cent of the asset value among majority of farmers.

19. Majority of the respondents realized a small increase in income ranging from one to 50 per cent over the previous mode of independent broiler production.

20. Good reports about the company from others motivated over 50 per cent of respondent farmers to contract with a particular firm.

21. Over 21 per cent of the respondents reported that the most important problem encountered in contract production was that of integrators charging higher costs for inputs.

22. Among the integrating firms, 26.31 per cent of small farmers, 18.03 per cent of medium and 17.40 per cent of large farmers were satisfied with contract production and indicated no problems.

23. The transition probability analysis revealed that only a few firms had loyal contract farmers as indicated by high retention coefficients.

24. Nine of the large contract farms wanted to switch over to another integrating firm if there were any better options in the offering. Similarly five medium farms and one small farm also
expressed the desire to shift the company. And none of the independent farmers wanted to shift to CF of broilers.

**Conclusion**

1. All categories of broiler farmers have the same terms and conditions under a written contract which is more leaning towards the integrators than the farmers with a glaring practice of collecting two blank cheques. And none of the integrators have insurance to cover the risk. Hardly any farmer has a copy of the written agreement and the document has little or no legal teeth in favour of the farmer in the court of law. The farmer gets a growing charge for steering the chicks from day one to marketable age. The base fee varies across firms ranging between Rs. 1.80 to Rs. 2.65 in addition to market price, production cost, and FCR linked incentives. The number of farmers contracted by each integrator varies between 60 and 300. The integrator practices like batch length, batch number, and additional organic supplements have affected the net profitability of broiler contract farms.

2. Despite market uncertainties, independent farmers are in poultry business for decades mainly due to own feed mixing, own retail outlets or trusted vendors. The profits per kg body weight are comparable to contract farms. The independent farmers preferred to continue to be independent.
3. The Cobb-Douglas production function indicated that flock size significantly influenced per batch returns for CF while for independent farms it was flock size and poultry farming experience.

4. The broiler integration has its inherent problems both for farmers as well as integrators. The farmers do not get quality chicks (minimum weight 40g.) which is most important basic input in broiler production. Even feed quality is not easily quantifiable and varies between batches. The integrators charge higher rates for chicks, feed, vaccines, medicines, sanitizers etc., and also insist use of medicines though not warranted, thus increasing the cost of production; the cost is debited from the growing charges. Delays in stocking of chicks were a common complaint from farmers and the study revealed that the average number of batches per year was fewer than the maximum possible of 6 batches. The flock density is less particularly during summer months reducing farmers returns. Higher mortality, surpassing the fixed cost of production attracts penalty. The penalty clause is only for farmers and no mention of it for integrators for any delay, deviations or violations.
**Policy implications:**

1. Legally enforceable contractual laws have to be introduced which is much easier with the recently introduced Model Act by Government of Karnataka.

2. Mandatory standards and certification ought to be introduced for various inputs like minimum DOC weight, feed quality, medicines and vaccines and even management practices.

3. The input prices need to be uniform and disclosing maximum retail price (MRP) on the bags or containers should be mandatory at least within the state for all the integrating companies.

4. All the integrating companies should get registered with the state department of Animal Husbandry and Poultry Federation disclosing the companies financial details and CF terms confirming to the existing laws.

5. The integrating companies should be permitted to import grand parent (GP) stock, vaccines and medicines to break the monopoly and create a healthy and competitive spirit among the industry players.

6. An autonomous body comprising representatives from industry, farmers, all line departments and related universities is strongly
advocated in the interest of all the stake holders of the broiler farming industry.

7. Common code for industry, farmer and consumer in production and rearing, keeping in view the environmental issues, pollution, health hazards and scarce natural resources.

8. Crop insurance to be raised by the company to cover the risks like natural calamities of flood, fire and the increasing repeated threats from diseases like Avian Influenza, Gumboro, Newcastle etc.,