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- ☐ An Evaluation of the Livestock Auction
 Market Operations in the Philippines
- ☐ The Pricing Aspects of Programming Models
- Community Level Statistics for Small Farmers

 Development in the Philippines: A Case Study



FOREWORD

This marks the second issue of volume two of the *Philippine Agricultural Economics Review*; and, appropriately enough, carries with it three examples of the variant studies done by the Bureau of Agricultural Economics.

Monitoring of livestock auction operations is a routinary activity of the bureau's Agricultural Marketing Services Division; and over the past seven years or from the time the first livestock auction market was set up, this has developed into a solid research partnership between BAEcon and its sister agency, the Bureau of Animal Industry (BAI). There have been previous articles published on livestock auction markets but the article in this journal is the most comprehensive so far.

BAEcon's venture in programming models on the other hand started with Project ADAM in the early 1970's. Dr. Rodriguez' article tackles pricing aspects of programming models, particularly as applied to the bureau's work on Project ADAM.

The article on community-level statistics completes this issue's forum on BAEcon studies.

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AN EVALUATION OF THE LIVESTOCK AUCTION MARKET OPERATIONS IN THE PHILIPPINES

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INTRODUCTION

The general objective of this study was to determine the socio-economic contribution of the livestock *oksyon* markets to the locality and to determine the benefits received by the market participants. In addition, it specifically sought to study the impact of the *oksyon* market system on the marketing decisions of the farmers and to determine any legal, structural, social or economic barriers which impede the development of the market.

The survey was done in 22 provinces where livestock oksyon markets are strategically located and where pooling places are operating. Respondents were from the four levels of market participants: sellers and buyers as classified, truckers of livestock and market administrators. However, this article will be limited to the operations of livestock buyers and sellers in the 22 provinces.

At the time of the study, there were 43 government-supervised livestock markets and several unregulated markets operating in the country. However, the survey covered only 29 of the regulated markets and 22 pooling places in Batangas; Urdaneta market in Pangasinan; the four markets in Cebu; four markets in Iloilo; and 14 other livestock markets located in other areas. The pooling places or the unregulated livestock markets were selected according to the volume of trade and number of traders (a minimum of 30).

Basic information was provided by a total of 2,835 market participants, broken down into 1,340 for all seller-categories; 1,250 for buyer-categories; 206 samples for truckers; and 39 market administrators. About 84 percent of the total respondents were represented by livestock *oksyon* markets, and 16 percent by pooling places. Part I of this article deals with the operations by livestock sellers; Part II presents an evaluation of operations of livestock buyers in the Philippines.

I. LIVESTOCK SELLERS

The 1979 evaluation survey of livestock sellers in the various auction markets in the country covered a total of 1,340 samples. The largest number (452) was credited to Batangas (which had six livestock auction markets)² while Urdaneta, Pangasinan accounted for 75. The four markets in Cebu³ had 94 respondents; Iloilo (also with four markets)⁴ had 123; other markets⁵ had 338 and pooling places⁶ had 208.

Categorized according to their specific market functions, sellers were divided into three types: the *farmer*, who sells his animals on his own at the livestock market; the *middleman*, who assembles livestock for sale and transports these to the markets and the *corridor* who negotiates or facilitates the sale between the livestock owner and the buyer. Farmers made up 48 percent of the livestock sellers interviewed; middlemen, 32 percent; and corridors, 20 percent.

The livestock seller's experience in the trade

The period during which the sellers had been in livestock trading varied from one to more than 15 years. About 61 percent were relatively *young* in the trade, with only 1 to 5 years in the business; 16 percent had been engaged in livestock selling for 6 to 10 years; while four percent had been in the trade for 11 to 15 years. The *veterans* in the business accounted for six percent of the total seller-sample, while non-responses made up 13 percent.

His frequency of selling

How often is livestock selling undertaken? The study found varying frequencies, with the most common observed as weekly selling. This was true for about 51 percent of all sellers. Monthly frequency was noted for ten percent; bi-monthly for seven percent; and daily frequency for four percent. About 24 percent of the sellers pinpointed their frequency of selling at *other times*; while four percent had no response.

²Includes Batangas City, Lemery, Lipa City, Padre Garcia, Taal and Tanauan Livestock Auction Markets.

³Includes Barili, Bogo, San Fernando and Sibonga Livestock Oksyon Markets.

⁴Includes Janiuay, Jordan, Leon and Miag-ao Livestock Oksyon Markets.

⁵Includes Alfonso, Bacarra, Cabugao, Catigbian, El Salvador, Kabankalan, Moises Padilla, Molave, Labo Sariaya, Sibalom, Tacurong, Uson and Zamboanguita Livestock Oksyon Markets.

⁶Selected unregulated livestock markets included in the survey.

Table 1. SELLERS: Number reporting, by category and by market/pooling place, Philippines, 1979

| MARKET/POOLING PLACE | FARMER | MIDDLEMAN | CORRIDOR |
|---|---|--|--|
| PHILIPPINES, TOTAL LAMS & POOLING PLACES Batangas Batangas City Lipa City Taal Lemery Tanauan Padre Garcia Urdaneta, Pangasinan Cebu Sibonga San Fernando Bogo Barili Iloilo Jordan Leon Miag-ao Janiuay Other Markets Sariaya, Quezon Alfonso, Cavite Bacarra, Ilocos Norte Cabugao, Ilocos Sur Labo, Daet, Camarines Norte Uson, Masbate Catigbian, Bohol Maluay, Zamboanguita, Negros Oriental Moises Padilla, Negros Occidental Kabankalan, Negros Occidental Sibalom, Antique Cogon, El Salvador Tacurong, South Cotabato | FARMER 649 262 30 31 50 50 41 60 18 56 24 16 15 91 16 30 15 30 124 5 28 2 14 8 8 8 5 16 6 7 1 18 5 | ## MIDDLEMAN ## 424 ## 81 24 ## 8 15 12 6 16 30 34 24 7 3 56 10 13 16 17 141 11 30 3 17 3 6 20 20 7 1 3 14 3 | 267 109 12 6 20 25 16 30 27 4 2 1 26 - 20 25 16 30 27 4 2 1 26 2 1 26 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 |
| Alaminos, Pangasinan Aguada, Masbate Badoc, Ilocos Norte Banga, South Cotabato Buenavista, Guihulgan, Negros Occidental Calasiao, Pangasinan Canlaon, Negros Occidental Dacuton, Capiz Digos, Davao del Sur Dinaig, Cotabato Dipolog, Zamboanga del Norte Isabela, Roxas Marandang, Lala, Iligan Olongapo City Pagadian, Zamboanga del Sur Piat, Cagayan Sagbayan, Bohol San Carlos City, Pangasinan San Joaquin, Iloilo Sara, Iloilo Sinait, Ilocos Sur Tuguegarao, Cagayan | 1 98 4 3 9 7 2 3 2 3 8 1 1 4 1 9 5 1 5 3 0 - | 3 82 3 1 4 5 1 3 7 9 1 5 5 5 4 - 7 2 1 4 - 6 5 5 | 1 28 1 1 1 1 6 5 - 1 1 8 - 2 |

Table 2. SELLERS: Number of years in business, by market/pooling place,
Philippines, 1979

| MARKET/POOLING PLACE | 1-5 | 6-10 | 11-15 | ABOVE 15 | NO ANSWER | TOTAL |
|-------------------------|--------------------|-------------|------------------------|---------------|--------------|----------------|
| Batangas | 337 (75) | 68 (15) | 10 (2) | 16 (3) | 21 (5) | 452 (100) |
| Urdaneta | 30 (40) | 22 (29) | 4 (6) | 9 (12) | 10 (13) | 75 (100) |
| Cebu | 59 (63) | 13 (14) | 3 (3) | 6 (6) | 13 (14) | 94 (100) |
| Iloilo | 63 (37) | 23 (13) | 14 (8) | 18 (10) | 55 (32) | 173 (100) |
| Others | 221 (65) | 52 (15) | 12 (4) | 17 (5) | 36 (11) | 338 (100) |
| Pooling Places | 103 (50) | 34 (16) | 12 (6) | 22 (10) | 37 (18) | 208 (100) |
| TOTAL | <u>813</u> (61) | 212 (16) | <u>55</u> (<u>4</u>) | <u>88</u> (6) | 172 (13) | 1,340 (100) |

NOTE: Figures in parentheses indicate percentage distribution of corresponding number.

By location, weekly selling was predominant for 68 percent of the Urdaneta sellers and 57 percent of those in Batangas and other LAMs. In Cebu, 55 percent of the respondents sold livestock twice a week; and 53 percent in Iloilo. Twice-amonth selling was practiced by ten percent in pooling places. Daily selling was observed only in Batangas (for nine percent of its respondents), other markets (one percent) and pooling places (five percent).

Table 3. SELLERS: Frequency of sales, by number of market/pooling place reporting,
Philippines, 1979

| MARKET/POOLING PLACE | WEEKLY | BI-MONTHLY | MONTHLY | DAILY | OTHERS (2 X A WEEK EVERY 3 YEARS) | NO ANSWER | TOTAL |
|-------------------------|------------------------------|----------------|------------------------|------------------|--|---------------|------------------------|
| Batangas | 258 (57) | 29 (6) | 63 (14) | 38 (9) | 32 (7) | 32 (7) | 452 (100) |
| Urdaneta | 51 (68) | 6 (8) | 3 (4) | - | 9 (12) | 6 (8) | 75 (100) |
| Cebu | 23 (24) | 7 (8) | 10 (11) | - | 52 (55) | 2 (2) | 94 (100) |
| Iloilo | 67 (39) | 3 (2) | 5 (3) | - | 92 (53) | 6 (3) | 173 (100) |
| Others | 191 (57) | 28 (8) | 40 (12) | 2 (1) | 72 (21) | 5 (1) | 338 (100) |
| Pooling places | 93 (45) | 20 (10) | 18 ⁻ (8) | 10 (5) | 62 (30) | 5 (2) | 208 (100) |
| TOTAL | 6 <u>83</u> (<u>51</u>) | 9 <u>3</u> (7) | 139 (10) | <u>50</u> (4) | 3 <u>19</u> (<u>24</u>) | <u>56</u> (4) | 1 <u>.340</u> (100) |

NOTE: Figures in parentheses indicate percentage distribution of corresponding number.

The frequency of selling is also an indication of the frequency of operation of the livestock auction markets studied. Likewise, it also indicates the volume of livestock available for trading in the various auction market centers.

The livestock types he handles

More than half (54 percent) of the sellers handled cattle while 13 percent were limited to carabaos. However, a combination of cattle and carabaos were sold by 14 percent. It will be noted that cattle accounted for 92 percent of the livestock trade in Batangas, 57 percent in Urdaneta and 49 percent in Cebu. Carabaos comprised 33 percent of the trade in Iloilo, and less than a quarter of the trade in the other areas. The cattle-carabao combination made up 27 percent of the Iloilo livestock trade, 29 percent in pooling places and 22 percent in Urdaneta.

Table 4. SELLERS: Types of livestock handled, by market/pooling place, Philippines, 1979

| MARKET/POOLING PLACE | CATTLE | CARABAO | HORSE | HOG | GÓAT | OTHERS | CATTLE AND CARABAO | MIXED | NO ANSWER | TOTAL |
|-------------------------|----------------------|----------------|-----------|------------------|-----------|--------|--------------------------|-------------|--------------|----------------|
| Batangas | 415 (92) | 13 (3) | 2 (1) | 1 | - | - | 10 (2) | 10 (2) | 1 | 452 (100) |
| Cebu | 43 (57) 46 | 14 (19) | 1 (1) | - | - | - | 16 (22) | 1 (1) | 1 | 75 (100) |
| Iloilo | (49) 40 | 4 (4) 58 | - | - | - | - | 17 (18) | 25 (27) | 2 (2) | 94 (100) |
| Others | (23) 128 | (33) | - | - | - | - | 46 (27) | 28 (16) | 1 (1) | 173 (100) |
| Pooling places | (38) | (20) | 2 - 7 | 26 (8) | 3 (1) | - | 43 (13) | 68 (20) | - | 338 (100) |
| TOTAL | (22) | (9) | (4) | 29 (14) | (4) | 1 | 61 (29) | 33 (16) | 5 2 | 208 (100) |
| TOTAL | 718 (<u>54</u>) | 176 (13) | 12 (1) | <u>56</u> (4) | 10 (1) | 1 | 193 (14) | 165 (12) | 9 | 1,340 (100) |

NOTE: Figures in parentheses indicate percentage distribution of corresponding number.

The predominance of cattle in the livestock trade is partly explained by the fact that the government prohibits the sale of young carabaos for slaughter purposes. Hogs made up only four percent of the livestock sold in LAMs since these are sold directly to commercial processors or in public markets. On the other hand, goats and horses have not yet gained the attention of most of the livestock traders. (One exception may be in Cebu where a separate shed for goats is part of the Barili livestock auction market).

Sources and outlets of the livestock sold

The bulk of the seller-respondents being farmers, the major sources of the livestock are therefore the farmers. Total cattle sold was 1,152 head; 610 or a little more than half were obtained from farmers, 91 from middlemen and the rest from truckers, other sellers, butchers, buyers, corridors and one from auction (referring to an animal purchased at the auction market and sold within the auction day). On

Table 5. SELLERS: Sources of livestock, by market/pooling place and by number of sellers reporting, Philippines, 1979

| CORRIDOR | | Billion and the second | | | 1 | , (| 7 | | | 4 1 | | - 1 | 10 | OT | - 4 | CT | | | | 1 | | | | , | | 1 | 29 | 10 | | ı | |
|------------------------------|------|------------------------|---------|-----|-------|----------|---------|-------|--------|---------|-------------------|--------|---------|-----|--------|---------|-----|-------|------|----------------|-----------------|-----|------|-------|-------------------|---|--------|---------|-----|------|-------|
| AUCTION | | - | 4 | r | 1 | 1 | ı | ı | ı | ı | | | 1 | ı | ı | 1 | ı | ı | 1 | ï | 1 | | | , | | | _ | | , | , | |
| MIDDLEMAN | | 2 | 1 | | 0 | | 707 | . 0 | | 7 | 1 | 000 | 1 | - | , 6 | 77 | 07 | 9I | 7 | 2 | 17 | 2 | 5 | | | ı | 91 | 23 | 21 | 7 | 7 |
| BUYER | | A | . , | | , - | 4 | | | | | | | | | . 4 | 3 | | 1 | , | 1 | | 1 | , | I | ed Milita associa | 1 | 6 | ' | -1 | | 1 |
| BUTCHER | | 9 |) , | | | | , | | , | , | 1 | | 1 | | , | 4 | | ı | ı | ı | ı | | | , | , | | 7 | 1. | ı | ı | |
| SELLER | | 74 | , | | | | | 1 | ı | | in the control of | 0 | 0 | | | | l | 8 | 8 | I | ı | 1 | 1 | 1 | 1 | | 92 | 10) | , | , | , |
| TRUCKER | | , | 1 | , | , | _ | | , | , | | , | , | , | | 4 | . = | 7.7 | | | | n | | 1 | | | | 6 | 111 | , | , | |
| FARMER | | 324 | 39 | _ | | 22 | 29 | - | 78 | 13 | - | 51 | 59 |) - | 159 | 20 | 12 | 77 | - | 1 2 | 1 0 | 23 | 63 | 10 | _ | (| 610 | 252 | 77 | | 12 |
| LIVESTOCK | Z.I | 445 | 16 | 4 | _ | 139 | 72 | | 00 | 13 | _ | 102 | 104 | П | 266 | 162 | 96 | 5 | 00 | 112 | 70 | 100 | 100 | 10 | _ | | 1,152 | 437 | 781 | 20 | N |
| LIVES | Type | Cattle | Carebao | Hog | Horse | Cattle | Carabao | Horse | Cattle | Carabao | Horse | Cattle | Carabao | Hog | Cattle | Carabao | Hog | Horse | Goat | Cattle | Carabao | Hog | LIUS | Horse | Goat | | CATTLE | CARABAO | HOG | GOAT | HORSE |
| SELLERS (TN) REPORTING | | 411 | 39 | | П | 45 | 29 | Ţ | 80 | 13 | 1 | 93 | 79 | 1 | 207 | 06 | 32 | 7 | 2 | 74 | 2.5 | 60 | 00 | 10 | T | | 1,340 | | | | |
| MARKET | | Batangas | | | | Urdaneta | | | Cebu | | | Iloilo | | | Others | | | | | Pooling places | Control Control | | | | | | TOTAL | | | | |

TN - Total number

the other hand, more than half or 252 out of 437 carabaos sold came from farmers and the rest from four other sources.

The livestock went largely to butchers (who were the outlet for 33 percent) and other farmers (who received 18 percent). In Iloilo, 68 percent of sellers sold their livestock to middlemen/butchers; and other LAMs, 47 percent. Batangas differed in that farmers and shippers made up its major outlets.

A large percentage of non-response as to outlet was indicated in Urdaneta (73 percent) and Cebu (30 percent).

Table 6. SELLERS: Percentage distribution of livestock outlets, by market/pooling place reporting, Philippines, 1979

| LIVESTOCK OUTLET | BATANGAS | URDANETA | CEBU | ILOILO | OTHERS | POOLING PLACES |
|---------------------|----------|----------|------|--------|--------|-------------------|
| Shippers | 42 | - | | - | - | 3 |
| Other places | | - | 8 | - | 4 | - |
| Livestock buyers | 3 | - | 17 | - | 18 | 41 |
| Farmers | 47 | 3 | 5 | 22 | 12 | 18 |
| Within the province | - | - | - | - | 8 | 9 |
| LAMs | 6 | 1 | 4 | 10 | 11 | 9 |
| Middlemen/butchers | 2 | 23 | 36 | 68 | 47 | 20 |
| No answer | - | 73 | 30 | - | - | - |
| TOTAL | 100 | 100 | 100 | 100 | 100 | 100 |

Time span in livestock sale

On the average, the livestock seller is able to sell his animal within one to six hours. This was true for majority of the respondents. The highest efficiency in selling (if time were an indication) was observed in pooling places and other LAMs which reported a ten percent disposal of livestock within one hour. Five percent disposal was reported for Cebu.

Table 7. SELLERS: Time length in selling animals, by market/pooling place,
Philippines, 1979

| ITEM | BATANGAS | URDANETA | CEBU | ILOILO | OTHERS | POOLING PLACES |
|-------------------------------|----------|----------|------|--------|--------|-------------------|
| Less than 1 hour - 1 head | - | _ | 5 | _ | 34 | 20 |
| 1 hour - 1 head | 117 | 1 | 17 | 69 | 94 | 14 |
| 2 hours - 1 head | 124 | - | 25 | 63 | 70 | 36 |
| 3 hours - 1 head | 124 | 3 | 30 | 32 | 44 | 31 |
| 4 hours - 1 head | 37 | | 7 | 7 | 31 | 10 |
| 5 hours - 1 head | 10 | 2 | 3 | 1 | 8 | 11 |
| 6 hours - 1 head | 9 | 11 | 1 | _ | 1 | 8 |
| 7.5-8 hours - 1 head | - | - | | 1 | | 2 |
| 12 hours - 1-2 head | - | 19 | | | | 3 |
| 1/2 day - 1 head | - | | | _ | | 5 |
| 1 day - 1-2 head | - | 10 | | | 5 | 2 |
| 2 days - 1 head | - | 11 | 1 | | | 2 |
| 3 days - 1 head | - | - | . | | 2 | |
| 4 days - 1 head | - | - | | | 2 | 2 |
| 6 years - 4 head | - | - | | | | 3 |
| 2-3 weeks - 1 head | - 1 | - | _ | | | 7 |
| 1 week - 1-3 head | - | - | | | 25 | 8 |
| 2 weeks - 1 head | . 1 | - | | | 4 | 3 |
| More or less a month - 1 head | - | _ | _ | | 4 | 5 |
| 1-4 months - 1 head | - | - | - | - | 7 | - |
| No sales | 5 | _ | _ | | _ | _ |
| Not applicable | 2 | _ | _ | - 1 | _ | - |
| No answer | 24 | 18 | 5 | - | 13 | 38 |
| TOTAL | 452 | 75 | 94 | 173 | 338 | 208 |

The seller's marketing practices

The study noted the use of the middlemen's services in a considerable number of cases. This should be particularly noted since livestock auction markets were primarily established in order to give the farmers the maximum profit by eliminating some of the middlemen in the trading process. Although the use of middlemen means added costs, the sellers (49 percent in Batangas and 46 percent in the pooling places) recognized that middlemen effected speedier sales. The profit motive was an important factor in sellers' use of middlemen (29 percent in Urdaneta and a lesser number in other centers), while 17 percent of the Cebu sellers observed that the middlemen were *more knowledgeable*. In Urdaneta, 33 percent noted that the middlemen had more buyers than the ordinary sellers. All these reasons add up to why sellers find the middlemen almost indispensable participants in the livestock trade.

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Table 8. SELLERS: Percentage distribution of reason of using middlemen, by market/pooling place reporting, Philippines, 1979

| REASON | BATANGAS | URDANETA | CEBU | ILOILO | OTHERS | POOLING PLACES |
|-----------------------------|----------|----------|------|--------|--------|-------------------|
| Faster sales | 49 | 15 | 11 | 8 | 30 | AC |
| Higher price | 11 | 29 | 4 | 2 | 5 | 46 |
| More knowledgeable | 5 | 3 | 17 | 9 | 6 | 5 |
| Convenience | 1 | 5 | 2 | 4 | 4 | 5 |
| Service with reasonable fee | 1 | 4 | 3 | 3 | 4 | 6 |
| Have more buyers | 7 | 33 | 2 | 2 | 12 | 1 |
| More regular customers | 2 | 10 | 8 | 1 | 9 | 6 |
| Others | 4 | _ | - | 1 | 9 | 5 |
| No answer | 15 | 1 | 53 | 61 | 1 | 1 |
| No reason | 4 | 1 | | 4 | 28 | 22 |
| TOTAL | 100 | 100 | 100 | 100 | 100 | 3 100 |

Types of selling arrangement

Direct sales is the more dominant arrangement in all auction market areas. The exceptions were three percent reported for contract sales in Batangas, two percent for other LAMs and three percent for pooling places. Eighteen percent of the transactions were for commission fees while one percent was sold on consignment.

Table 9. SELLERS: Selling arrangements, by market/pooling place reporting, Philippines, 1979

| SELLING ARRANGEMENT | TOTAL | BATANGAS | URDANETA | CEBU | ILOILO | OTHERS | POOLING |
|------------------------|----------------|----------------|-------------|-----------------------------|--------------|--------------|-----------------|
| Contract sale | 42 (3) | 13 (3) | - | | - | 7 (3) | 22 |
| Consignment | 14 (1) | 6 (1) | - | - | - | - | (7) 8 (2) |
| Direct sale | 1,041 (78) | 335 (74) | 35 (47) | 90 (96) | 146 (84) | 193 (93) | 243 (72) |
| Commission fee | 242 (18) | 98 (22) | 40 (53) | 4 (4) | 27 (16) | 8 (4) | 65 (19) |
| TOTAL | 1,340 (100) | (<u>100</u>) | 75 (100) | <u>94</u> (<u>100</u>) | 173 (100) | 208 (100) | 338 (100) |

Who sets prices?

About 95 percent of the sellers in Iloilo and 77 percent in Urdaneta effectively decided on how much the buyer had to pay. However, the corridor also set the price for 14 percent of the transactions in Urdaneta, nine percent in Batangas and six percent or less in the small areas except Cebu. A small percentage of the buyers (ranging from six percent in Batangas to 19 percent in pooling places) also had some voice in pricing livestock. However, it may be safely assumed that the prices agreed upon (no matter who may have been the price decision-maker) were the result of bargaining and struck somewhere between the desired prices of both buyer and seller.

Table 10. SELLERS: Percentage distribution of price decision makers, by market/pooling place, Philippines, 1979

| ITEM | SELLER | BUYER | CORRIDOR | OTHERS | TOTAL |
|----------------|--------|-------|----------|--------|-------|
| Batangas | 85 | 6 | 9 | - | 100 |
| Urdaneta | .77 | 9 | 14 | - | 100 |
| Cebu | 90 | 10 | - | - | 100 |
| Iloilo | 95 | - | 3 | 2 | 100 |
| Others | 81 | 13 | 6 | - | 100 |
| Pooling places | 78 | 19 | 3 | - | 100 |

Pricing scheme

The per head basis (bultuhan) was generally used in the Batangas markets and pooling places (at 70 percent and 54 percent, respectively) but also prevailed in the other auction centers with percentages ranging from 13 percent (as in Urdaneta) to 35 percent (other LAMs). In Iloilo, half of the transactions were on liveweight basis while three schemes were dominant in Urdaneta: liveweight, by negotiation and based on the prevailing market price. The Cebu market largely used price negotiation (32 percent) and bultuhan (34 percent) while other LAMs used bultuhan (35 percent) and the liveweight basis (26 percent). On the other hand, pooling places used bultuhan as price basis for 54 percent of its transactions and negotiated sales for 38 percent. Very few of the sellers relied on prevailing prices as a means to arrive at a price scheme.

Table 11. SELLERS: Percentage distribution of the basic methods of price setting by market/pooling place, Philippines, 1979

| MARKET/POOLING PLACE | NEGOTIATION | PREVAILING MARKET PRICE | RETAIL MARKET PRICE | BULTUHAN (per head) | ESTIMATED DRESSWEIGHT | LIVEWEIG'HT (kgms.) |
|-------------------------|-------------|----------------------------|------------------------|------------------------|--------------------------|------------------------|
| Batangas | 6 | 2 | 1 | 70 | 8 | 13 |
| Urdaneta | 20 | 20 | 1 | 13 | 14 | 32 |
| Cebu | 32 | 1 | 1 | 34 | 18 | 14 |
| Iloilo | 17 | 6 | - | 19 | 8 | 50 |
| Others | 19 | 9 | - | 35 | 11 | 26 |
| Pooling places | 38 | - | - | 54 | 3 | 5 |

Payment scheme

The livestock market is dominantly a cash market, where money changes hand in cash form right within the area. The few exceptions where credit or installment was allowed were noted in Batangas (four cases), Urdaneta (one case), Iloilo (six cases) and other markets (two cases), or a total of 13 cases out of 1,340 transactions.

Table 12. SELLERS: Mode of payment, by market reporting, Philippines, 1979

| ITEM | BATANGAS | URDANETA | CEBU | ILOILO | OTHERS | POOLING PLACES |
|---|---------------------|-------------------|-------------------|--------------------|---------------------|---------------------|
| Manner of payment | | | | | | |
| Cash Installment Credit No answer | 438 2 2 10 | 67 - 1 7 | 93 - - 1 | 165 1 6 1 | 320 10 2 6 | 194 10 - 4 |
| TOTAL | 452 | 75 | 94 | 173 | 338 | 208 |
| Time of payment | | | | | | |
| Immediately after sales Before transfer of | 422 | 74 | 21 | 161 | 246 | 148 |
| ownership Immediately after the | 14 | - | 1 | 2 | 34 | 8 |
| price is agreed upon No answer | 8 8 | 1 - | 64 10 | 9 1 | 51 7 | 46 6 |
| TOTAL | 452 | 75 | 94 | 173 | 338 | 208 |

What happens to unsold livestock?

It is unusual for an auction market to report a hundred percent sales at the end of a market day. The question therefore arises as to what happened to unsold stock. Sellers were asked on how they disposed of any livestock unsold.

Majority of the stock were returned home or brought back to farm (66 percent in Batangas, 50 percent in Cebu and less than half in other areas). In Batangas, four percent were channelled to other markets, 17 percent returned to owners and two percent kept for resale. In Urdaneta, a larger percentage (69 percent) were kept for resale than those returned home (28 percent); while two percent were kept for resale in Cebu.

Table 13. SELLERS: Manner of disposal of unsold animals, by market/pooling place reporting, Philippines, 1979

| ITEM | BATANGAS | URDANETA | CEBU | ILOILO | OTHERS | POOLING PLACES |
|---------------------------|----------|----------|------|--------|--------|-------------------|
| Returned home or to farm | 299 | 21 | 47 | 62 | 141 | 39 |
| Brought to other markets | 20 | | - | - | 42 | - |
| Slaughtered | - | | ~ | 1 = | - | 12 |
| Kept for reselling | 8 | 52 | 2 | - | 9 | 79 |
| Sold by installment basis | - | | - | - | - | 4 |
| Returned to owner | 78 | | ~ | - | 22 | |
| Not applicable | 6 | _ | 32 | 5 | 29 | 59 |
| No answer | 41 | 2 | 13 | 106 | 95 | 15 |
| TOTAL | 452 | 75 | 94 | 173 | 338 | 208 |

Source of capital

Lack of capital is a critical problem for most Filipino farmers but the study found that the livestock seller is not an average farmer in this respect. About 74 percent of the respondents had sufficient funds to support their trade. The rest who had insufficient capital relied on friends, others (not specified), and cooperatives, in that order.

Table 14. SELLERS: Percentage distribution of sources of capital, by number of market/pooling place reporting, Philippines, 1979

| SOURCE | BATANGAS | URDANETA | CEBU | ILOILO | OTHERS | POOLÍNG PLACES |
|--------------|----------|----------|------|--------|--------|-------------------|
| Banks | 1 | - | 3 | 6 | 3 | - |
| Friends | 8 | - | 18 | 22 | 16 | 48 |
| Cooperatives | - | - | - | - | 2 | - |
| Own money | 91 | 73 | 79 | 72 | 79 | 52 |
| Others | - | 27 | - | - | - | - |
| TOTAL | 100 | 100 | 100 | 100 | 100 | 100 |

Costs incurred

On the average, costs incurred in marketing amounted to \$\mathbb{P}20.45\$ per head sold in all auction market centers. By location, the seller in Iloilo incurred highest costs at \$P32.24\$ per head while the seller in pooling places had lowest costs at \$\mathbb{P}13.70\$.

Costs incurred consist of three components: transportation, labor and marketing (which includes fees for ownership, transfer, yardage and others). For all

areas, total costs incurred in selling livestock amounted to \$\mathbb{P}28,144. Transportation accounted for the bulk of costs at 68.4 percent (\$\mathbb{P}19,235)\$ while labor made up 9.7 percent (\$\mathbb{P}2,724)\$ of total costs. Marketing costs on the other hand amounted to about \$\mathbb{P}6,185\$ corresponding to 21.9 percent of overall costs incurred.

Table 15. Costs incurred in selling livestock at the livestock "oksyon" markets/pooling places, by seller reporting, Philippines, 1979

| MARKET/POOLING PLACE | TOTAL MARKETING COST | TRANSPOR- TATION COST | LABOR | OWNERSHIP FEE | TRANSFER FEE | YARDAGE FEE | OTHER FEES | FOR ALL MARKETS (per head) |
|-------------------------|----------------------------|-----------------------------|-------------------|------------------|-------------------|-----------------|-------------------|----------------------------------|
| Batangas | 5,143.50 | 4,262.50 | | 161.50 | 522.50 | 197.00 | | 19.71 |
| Urdaneta | 4,402,00 | 3,714.00 | 155.00 | 88.50 | 354.00 | 88.50 | 2.00 | 24.87 |
| Cebu | - | | | - | - | - | - | - |
| Iloilo | 6,383.15 | 3,934.65 | 1,057.00 | 99.00 | 396.00 | 99.50 | 797.00 | 32.24 |
| Others | 7,023.42 | 4,724.94 | 682.49 | 172.50 | 690.00 | 172.50 | 580.99 | 20.36 |
| Pooling places | 5,183.53 | 2,599.33 | 828.70 | 197.50 | 790.00 | 197.50 | 570.50 | 13.70 |
| TOTAL | 28,135.60 (100) | 19,235.42 (68.4) | 2,723.19 (9.7) | 719.00 (2.5) | 2,752.50 (9.8) | 755.00 (2.7) | 1,950.49 (6.9) | 20.45 |

NOTE: Figures in parentheses indicate percentage distribution of corresponding number.

Number of animals transported and means of transportation

Sellers brought their stock to the markets by several means: by vehicles (truck, jeep, tricycle, bus and calesa) and on foot. This depended on the location of the sellers (and that of the auction market) and not primarily on individual choices. In Batangas, 72 percent of the stock were brought to the markets on trucks, 18 percent in jeepneys and ten percent on foot. In Urdaneta, 59 percent were transported on trucks, 32 percent in jeepneys and nine percent on foot. Livestock were predominantly transported on foot in Iloilo (91 percent) and in pooling places (59 percent). For other markets, 43 percent were brought on foot, 33 percent on trucks and 24 percent in jeepneys. The auction markets in Iloilo and other LAMs were accessible to farmers, therefore explaining the larger percentage of livestock brought to the said market on foot. Overall, of the total livestock traded, 594 (45 percent) were transported by foot, 501 (37 percent) on trucks, 265 (19 percent) in jeepneys and one percent by bus or tricycle.

Table 16. SELLERS: Number of livestock transported by means of transportation and by market/pooling place reporting, Philippines, 1979

| MARKET | TOTAL NUMBER OF HEAD TRANSPORTED | TRUCK | JEEP | FOOT | BUS/ TRICYCLE |
|----------------|----------------------------------|-------|------|------|------------------|
| Batangas | 261 | 186 | 47 | 28 | - |
| Urdaneta | 177 | 104 | 58 | 15 | - |
| Cebu | - | - | - | - | - |
| Iloilo | 198 | 14 | 2 | 182 | - |
| Other markets | 345 | 116 | 83 | 146 | - |
| Pooling places | 395 | 81 | 75 | 223 | 14/2 |
| TOTAL | 1,376 | 501 | 265 | 594 | 14/2 |
| | (100) | (37) | (19) | (43) | (1) |

NOTE: Figures in parentheses are percentage distribution of corresponding number.

Livestock traded in the auction markets

The study also indicated the volume of livestock trading in the areas covered. During a one-month period, all livestock auction markets studied reported a total volume of 10,199 head of cattle sold. These had an aggregate value of \$\mathbb{P}\$16.1 million, or \$\mathbb{P}\$1,712 per head of male (bull) and \$\mathbb{P}\$1,301 per head of female (cow) cattle. Average value of cattle sold per head was \$\mathbb{P}\$1,281 for cattle one year of age and below; \$\mathbb{P}\$1,619 for those 2 to 5 years, and \$\mathbb{P}\$2,075 for cattle six years and more.

Half of the cattle sold (5,543 out of 10,199), was reported in the Batangas markets, with total value of $\mathbb{P}9.8$ million. It appears that the Batangas cattle are of better quality, with average value at $\mathbb{P}1,955$ per bull (higher than the national average) and $\mathbb{P}1,411$ per cow. Even in terms of age, Batangas cattle were higher than those in other areas with $\mathbb{P}1,916$ quoted per head (as against $\mathbb{P}1,619$ in national average) for the 2-5 age range; and $\mathbb{P}2,909$ for those 6 years and above ($\mathbb{P}2,075$ for the national level).

Urdaneta sold 1,743 head with value at \$\mathbb{P}2.7\$ million, or an average of \$\mathbb{P}1,526\$ per bull and \$\mathbb{P}1,790\$ per cow. This area had the highest average price per head of cattle in the 2-5 age range, at \$\mathbb{P}1,916\$, which is more than the average price in Batangas or at the national level.

It will be noted that Cebu had the lowest price quotations for all cattle types. A seller in Cebu received only \$\mathbb{P}958\$ per bull and \$\mathbb{P}736\$ per cow which are slightly more than half of the national averages. Prices by age in Cebu were about half the national-level prices, which could be an indication of inferior-quality livestock in the province.