Expenditure Survey, in rural area, average expenditures to foodgrain including drink and education are 69% and 0.9% of household expenditures, respectively.

## 9-6 Farm Economic Survey

### 9-6-1 General Background

In order to assess the present farm economic situation in the Study area of the North Rajshahi Irrigation Project, a selective sample survey was conducted in the selected villages under the four Project - Upazilas: Godagari, Niamatpur and Tanor in the Barind part of the project and Paba Upazila in the floodplain part. The important variables that were addressed in the Survey area: family-characteristics, occupation status, tenurial status, cropping pattern and intensity, farm income and expenditure profile, prices of firm inputs and output, use of farm inputs, crop production costs, farm credit, irrigation practices, etc. These objective variables are expected to be favourably affected by the proposed project facilities, along with many other subjective variables like health and sanitation, transports, farmers' cooperative activities, general life-style, etc. the benefits of which cannot be immediately quantified. The data gathered out of the said farm economic survey would serve as the basis for comparing the changed situation in futur while evaluating the project impacts.

### 9-6-2 Methodology for the Survey

With the time constraint at the background, only 10 representative villages from the said 4 upazilas were selected as follows:

| | | |
|---|---|---|
| (a) | Paba Upazila | 2 villages |
| (b) | Godagari " | 3 " |
| (c) | Tanor " | 2 " |
| (d) | Niamatpur " | 3 " |
| | Total | 10 villages |

For selecting the actual villages, preliminary visits were made in all the four Upazila Headquarters. Having discussed with the relevant upazila officials and local BWDB officials it was found that the socio-economic situations of different villages under the project area differed widely from one another. Thus the following criteria were considered:

(a) irrigation status
(b) topography of land
(c) cropping pattern
(d) probable cooperation of the local people and
(e) accessibility to the area

Following particular villages met the above criteria and, therefore, were selected:

| Upazila | Villages | Union |
|---|---|---|
| a) Paba | 1) Beel Nepal Para (Irrigated) | Under Darshanpara Union |
| | 2) Darshan Para (Non-irrigated) | |
| b) Godagari | 3) Ghanashayampur (Irrigated) | Under Basudevpur Union |
| | 4) Paramanandapur (Irrigated) | Under Godagari Union |
| | 5) Sarengpur (Non-irrigated) | |
| c) Tanor | 6) Saranjai (Irrigated) | Under Saranjai Union |
| | 7) Pachandar (Non-irrigated) | Under Pachandar Union |
| d) Niamatpur | 8) Bhabicha (Irrigated) | Under Babicha Union |
| | 9) Ramkura (Non-irrigated) | Under Srimantapur Union |
| | 10) Niamatpur (Non-irrigated) | Under Niamatpur Union |

Fifty households were selected on the basis of first hand information from each of the above selected villages, so that total observations became 500. For choosing the actual households to be surveyed, a quick census with a small questionnaire was conducted in the selected villages. The questionnaire included: the name of the head of the household, area of land owned, type of crops produced, area of land irrigated and the like.

In addition to the above survey of farm households, attempts were made to select some other crucial information (stage-wise detailed employment data and prices of different inputs). For this, some 40 households were contacted in those 10 villages, some of them, of course, fell within the selected 500 households.

Moreover, 8 irrigation scheme managers/owners (2 from each upazila) were interviewed to collect information on the economics of irrigation at present.

For some overall statistics of the selected Upazilas, the BRDB officials, RKUB (Rajshahi Krishi Unnayan Bank) Managers and other development officials at upazila level were interviewed.

The Questionnaires for the Farm Economic Survey have been appended at Appendix _____ for reference.

9-6-3 Conduct of Survey

A team of 12 multi-disciplinary field investigators was formed under the leadership of a professor of Economics in Rajshahi, Dr. M.A. Hamid. The team-members were chosen from four different disciplines closely related to the nature of the survey: Agro-economics, Sociology, Statistics and Engineering. Two Associate Professors of Economics of Rajshahi University were assigned with the supervisory task during the survey in the said 10 villages and with the task of preparation of tables, compilation and verificiation of data collected.

Definition of some Terms used in Tables

Some important terms had already been defined before the Farm Economic Survey was conducted. Four categories were defined as below, for example, to group the respondents:

(a) Landless (LL) - Those having no operational lands or have lands not exceeding 0.20 ha.

(b) Small Farmers (SF) - Those having operational holdings ranging from 0.20 to 1.0 ha.

(c) Medium Farmers (MF) - Those having operational holdings ranging from 1.0 to 3.0 ha.

All those farm holdings again were defined into four categories according to their tenurial status as follows:

(a) Owner-Cultivator - Those who cultivate their own land and do neither lease in or out any land.

(b) Owner-cum-Tenant - Those who lease in or lease out land in addition to cultivating their own lands.

(c) Tenant - Those who do not possess any land but cultivate land by leasing in from others.

(d) Pure Landless - Those who are not related to cultivation directly. Absentee landlords are also included in this category.

As for the term "Barind", three Upazilas: Godagari, Tanore and Niamatpur have been meant and Paba Upazila has been treated as floodplain area. Of course, separate information have been provided for each of the four upazilas in most cases of the study.

9-6-4 Summary Tables

(1) Presentation of Tables

The Farm Economic Survey data have been gathered to provide demographic (Tables 1, 2 & 3), agricultural (Tables 4 through 8), Agro-economic (Tables 9 through 21) of the project area in systematic manner and in reasonable depth and dimension.

Table-1: It gives the family characteristics of 500 selected households. A "Family" is defined as those persons who take their meals from one kitchen. Sex, age and family-size are the dimensions of family characteristics. The table is appended at Appendix 1.

Tables-2 and 3: These two tables provide occupational statistics for all of the selected 500 households. The active age-bracket has been defined between 10 years and above. Occupation has been divided by type status as below:

Type - agricultural (own farm and other firm) and non-agricultural.

status - Main, Secondary and Full-time.

Tables 4 and 5: Tenurial situation has been shown in these tables. In Table-4, the land tenure system has been broadly divided into owned and operated land against four pure landless for Paba and Barind area separately. In Table-5, distribution of owned land has been shown by tenurial status (own-cultivation and leased out) for small, medium and large farms separately (as in Appendix 1). These indicate the structural difference between land holding classes and their relative situation affecting agriculture in the area.

Table-8: Cropping pattern for Paba and Barind areas is shown by upazila in Table-8. Only operated land has been considered here and only the operating ones for farmers. This table showed a complete split of crops for all operated land and the cropping intensity is also calculated on that basis. (See Appendix 1.)

Tables-9 through 21 (Agro-economic aspects): Prices of farm inputs and output have been compiled in Table-9. All input prices have been obtained from farmers' interview in the field except only for fertilizer prices which are, however, official. Output prices have all been obtained from farmers in the field. Prices of inputs and output have been shown separately for Paba and Barind area.

As for application of farm inputs, information have been incorporated for each crop field survey. These quantities have been used to calculate cost of production of each crop per ha as shown in Table-11 (see Appendix-1) where input prices emerge from Table-10. It is mentioned that values of by-products have been deducted from gross costs to obtain agricultural production cost. The costs have been broken down first into two broad heads: Purchased (cash and kind) and self-supporting which are further broken down into seed, labour, fertilizer, draught animal, etc. by each crop by size of ownership for Paba and Barind areas separately. Labour requirement by crop and by use is given in Table-17, all collection from field survey.

Production and distribution of various crops by farm-size and upazila have been presented in Table-12. All these information were obtain from the field. While costs are borne by share-croppers, crop-sharing arrangement is 50+50 between owner and share-cropper for all crops except only HYV crop where the share is 66.7:33.3. These are also presented for Paba and Barind area separately (see Appendix 1).

Table-13 shows Yearly consumption of foodgrains (rice and wheat) for different farm-sizes in Paba and Barind area separately. For calculation, mainly the data of the National Household Expenditure Survey and of the Study in North-Western Bangladesh, conducted by the consulted. Variation in different areas for different farm-sizes reflect their size of family.

Tables-14 and 15 give income and expenditure profiles for the project-area-farmers per household, again by size of farm for Paba and Barind area separately. Net agricultural income, non-agricultural income and gifts were taken into gross income calculation while operating costs, repayment of debts land taxes were excluded to obtain disposable income of the households. On the other hand food, housing, clothing, education, fuel, medicine and other expenses were taken into gross expenditure calculation while disposable income (in Table-14) was excluded to obtain Net Economic Surplus of each Farm Household (see Annex 1).

Yearly Gross Returns from sale of agricultural produces have been shown for different farm-sizes in cash and kind separately in Table-16 to give the impact of farm-land on farmers' economic status at present in project area.

Crop-damage figures were, however, collected from farmers in project area and are given in Table-18. These information have been approximate and, therefore, in percentages. (See Appendix 1.)

Table-19 gives Costs and Net Returns of some selected irrigation schemes (2 schemes per Upazila, in all 8). The names of scheme Managers with name of respective villages are shown for ground water irrigation either by DTW or by STW. Engine models are also given. Cost of irrigation by type and crop are calculated and average cost per ha and per farm household are shown for Paba and Barind area separately. Irrigation costs varied widely for different crops (Aus local, Aus HYV, Aman local, Aman HYV, Boro local, Boro HYV and Wheat) and also for different schemes.

All 500 households of the selected survey-villages were interviewed to obtain information on farm credit situation both institutional and non-institutional. These are completed in Table-20, where borrowing households are shown within parenthesis and sources are mentioned in different columns. Table-21 gives interest rates of the institutional sources (BKB, NCB and UCA), broken down into purposes of credit. These information were obtained from Rajshahi Krishi Unnayan Bank. For non-institutional credit it was learnt from field interviews that the rate of interest varies from 50% to 200%.

Table V-4-1. Farm Household

| Upazila | Household Total No. | Household Percentage (%) | FARM HOUSEHOLD Total No. | Total % | Small-Size Group No. | Small-Size Group % | Medium-Size Group No. | Medium-Size Group % | Large-Size Group No. | Large-Size Group % |
|---|---|---|---|---|---|---|---|---|---|---|
| Niamatpur | 29,140 | 100 | 20,906 | 71.7 (100) | 9,332 | (44.6) | 8,675 | (41.5) | 2,899 | (13.9) |
| Godagari | 30,180 | 100 | 18,839 | 62.4 (100) | 7,926 | (42.1) | 8,415 | (44.7) | 2,498 | (13.2) |
| Paba | 29,688 | 100 | 19,268 | 64.9 (100) | 12,384 | (64.3) | 5,538 | (28.7) | 1,346 | ( 7.0) |
| Tanore | 21,004 | 100 | 13,884 | 65.1 (100) | 6,545 | (47.1) | 5,521 | (39.8) | 1,818 | (13.1) |
| Nachole | 12,468 | 100 | 8,143 | 65.3 (100) | 3,051 | (37.5) | 3,642 | (44.7) | 1,450 | (17.8) |
| Total (Study Area (A) ) | 122,480 | 100 | 81,040 | 66.2 (100) | 39,238 | (48.4) | 31,791 | (39.2) | 10,011 | (12.4) |
| Rajshahi (B) | 866,387 | 100 | 613,331 | 70.8 (100) | 370,008 | (60.3) | 191,662 | (31.3) | 51,661 | ( 8.4) |
| Bangla-desh (C) | 13,817,646 | 100 | 10,045,299 | 72.7 (100) | 7,065,957 | (70.4) | 2,483,210 | (24.7) | 496,132 | ( 4.9) |

Source: The Bangladesh Census of Agriculture and Livestock, 1983-84, Volume I.

Table V-4-2. Holdings by Size of Owned Area

| | Total | Up to 0.4 | 0.4 to 1.0 | 1.0 to 3.0 | 3.0 to 6.0 | 6.0 and above |
|---|---|---|---|---|---|---|
| Number | 111,761 | 55,934 | 23,784 | 23,872 | 6,206 | 1,965 |
| Percentage | 100 | 50 | 21.3 | 21.4 | 5.6 | 1.7 |

Source: Bangladesh Census of Agriculture and Livestock, 1983-84.

Note: See Appendix E-13.

Table V-4-3. Land Tenture System by Size Group in Percentage

| Size Group / Tenure | Landless | Small Farmers | Medium Farmers | Large Farmers | Total |
|---|---|---|---|---|---|
| Owner | 64.9 | 54.2 | 49.4 | 53.8 | 53.2 |
| Owner-Tenant | - | 21.6 | 38.8 | 46.2 | 30.3 |
| Tenant | 35.1 | 24.2 | 11.8 | - | 16.5 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Farm Economic Survey in Phase II Survey.

TABLE V-4-4. HOLDINGS BY SIZE OF OWNED AREA

| Number / Upazila | T o t a l | | Up to 0.4 ha | | 0.4 to 1.0 ha | | 1.0 to 3.0 ha | | 3.0 to 6.0 ha | | 6.0 and above | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| Niamatpur | 27,526 | 100 | 12,585 | 45.7 | 6,057 | 22.0 | 6,444 | 23.5 | 1,850 | 6.7 | 590 | 2.1 |
| Godagari | 27,805 | 100 | 14,486 | 52.1 | 5,581 | 20.1 | 5,781 | 20.1 | 1,469 | 5.3 | 488 | 1.7 |
| Paba | 27,194 | 100 | 14,739 | 54.2 | 5,980 | 22.0 | 5,201 | 19.1 | 992 | 3.7 | 282 | 1.0 |
| Tanore | 20,072 | 100 | 10,286 | 51.2 | 4,093 | 20.4 | 4,190 | 20.9 | 1,120 | 5.6 | 383 | 1.9 |
| Nachole | 9,164 | 100 | 3,838 | 41.9 | 2,073 | 22.6 | 2,256 | 24.6 | 775 | 8.5 | 222 | 2.4 |
| Total (Study area) | 111,761 | 100 | 55,934 | 50.0 | 23,784 | 21.3 | 23,872 | 21.4 | 6,206 | 5.6 | 1,965 | 1.7 |
| Rajshahi | 812,676 | 100 | 416,064 | 51.2 | 182,677 | 22.5 | 163,648 | 20.1 | 38,244 | 4.7 | 12,043 | 1.5 |
| Bangladesh | 12,619,490 | 100 | 6,860,797 | 54.4 | 2.978,992 | 23.6 | 2,247,580 | 17.8 | 415,346 | 3.3 | 116,775 | 0.9 |

Source : The Bangladesh Census of Agriculture and Livestock:1983-84 Volume 1.

Paba

Table V-4-5. Land Tenure System by Size Group in Percentage.

| Tenure \ Size Group | Landless. | Small Farmers | Medium Farmers | Large Farmers | Total |
|---|---|---|---|---|---|
| Owner. | 47.0 *1<br>(13.6) | 58.1<br>(42.4) | 69.0<br>(33.9) | 66.7<br>(10.2) | 60.2<br>(100.0) |
| Owner Tenant. | -<br>( - ) | 18.6<br>(44.4) | 24.1<br>(38.9) | 33.3<br>(16.7) | 18.4<br>(100.0) |
| Tenant. | 52.9<br>(42.8) | 23.3<br>(47.6) | 6.9<br>(9.5) | -<br>( - ) | 21.4<br>(100.0) |
| Total. | 100.0<br>(17.3) | 100.0<br>(43.9) | 100.0<br>(29.6) | 100.0<br>(9.2) | 100.0<br>(100.0) |

Source : Farm. Economic Survey in Phase II Survey.
Note : *1 Landless III - Landless III stands for households with homstead land and owning upto 0.50 acre(0.2 ha)of other land in addition to homestead land.

Barind.

| Tenure \ Site Group. | Landless. | Small Farmers. | Medium Farmers | Large Farmers | Total |
|---|---|---|---|---|---|
| Owner. | 80.0<br>(9.6) | 52.7<br>(34.7) | 45.4<br>(38.3) | 51.8<br>(17.4) | 51.1<br>(100.0) |
| Owner Tenant. | -<br>( - ) | 22.7<br>(22.5) | 41.8<br>(53.2) | 48.2<br>(24.3) | 33.9<br>(100.0) |
| Tenant. | 20.0<br>(8.2) | 24.6<br>(55.1) | 12.8<br>(36.7) | -<br>( - ) | 15.0<br>(100.0) |
| Total. | 100.0<br>(6.1) | 100.0<br>(33.7) | 100.0<br>(43.1) | 100.0<br>(17.1) | 100.0<br>(100.0) |

Source : Farm Economic Survey in Phase II Survey.
Note : *1 Landless III - Landless III stands for households with homestead land and owning upto 0.5 acre(0.2 ha) of other land in addition to homestead land.

Appendix - F
Table F - 16 Distribution of Owned Land by Tenurial Status in Percentage.
Paba (Continued)

| Tenure. | Size Group. Owned Land. Small Farmers (including) L.L | Medium Farmers. | Large Farmers. | Total. | Leased Out Land. Small Farmers (including) L.L. | Medium Farmers. | Large Farmers. | Total. | Proportion of Leased Out Land to Owned Land. Small Farmers (including) L.L | Medium Farmers | Large Farmers | Total. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Owner. | 74.5 (19.0) | 93.8 (45.3) | 64.6 (35.7) | 77.5 (100.0) | - | - | - | - (100.0) | - | - | - | - |
| Owner Tenant | 25.5 (22.3) | 6.2 (10.3) | 35.4 (67.4) | 22.5 (100.0) | 100.0 | - | 100.0 | 100.0 (100.0) | 7.5 | - | 27.8 | 20.4 |
| Absentee. Landowner. | - (-) | - (-) | - (-) | - (100.0) | - | - | - | - (100.0) | - | - | - | - |
| Total. | 100.0 (19.7) | 100.0 (37.4) | 100.0 (42.9) | 100.0 (100.0) | 100.0 (8.2) | 100.0 (-) | 100.0 (91.8) | 100.0 (100.0) | 1.9 | - | 9.9 | 4.6 |

Source : Farm Economic Survey in Phase II Survey.

(in ha)

| Size Group / Item / Tenure | Landless. Area. | Per H.H | Small Farmers. Area. | Per H.H | Medium Farmers. Area. | Per H.H | Large Farmers Area. | Per H.H | Total. Area. | Per H.H |
|---|---|---|---|---|---|---|---|---|---|---|
| Owner-Tenant. | 12.61 % (16.1) | 0.97 | 40.47 % (51.8) | 0.79 | 19.35 % (24.8) | 0.51 | 5.67 % (7.3) | 0.21 | 78.10 % (100.0) | 0.61 |
| Tenant. | 54.66 (100.0) | 0.78 | - | - | - | - | - | - | 54.66 (100.0) | 0.78 |
| Total. | 67.27 (50.7) | 0.81 | 40.47 (30.5) | 0.79 | 19.35 (14.6) | 0.51 | 5.67 (4.2) | 0.21 | 132.76 (100.0) | 0.67 |

Source : Farm Economic Survey in Phase II Survey.
Note : 1) Per household figures are calculated by considering the operating household only.
2) Here farmer categories are defined on the basis of size of land owned and not the size of land operated.

Table V-4-6. Distribution of Owned Land by Tenurial Status in Percentage.

Study Area.

| Tenure. / Size Group. | Owned Land. Small Farmers (including) L.L | Medium Farmers. | Large Farmers. | Total. | Leased Out Land. Small Farmers (including) L.L | Medium Farmers | Large Farmers. | Total. | Proportion of leased Out Land to Owned Land. Small Farmers (including) L.L | Medium Farmers | Large Farmers | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Owner. | 60.9 (13.5) | 67.5 (40.4) | 48.3 (46.1) | 56.4 (100.0) | - ( - ) | - (-) | - (-) | - (100.0) | - | - | - | - |
| Owner Tenant. | 33.1 (10.6) | 31.8 (27.3) | 45.3 (62.1) | 39.2 (100.0) | 15.9 (1.6) | 88.8 (21.8) | 66.4 (76.6) | 66.7 (100.0) | 3.4 | 8.1 | 28/0 | 22.7 |
| Absentee Landowner | - (17.0) | 0.7 (5.5) | 6.4 (77.5) | 4.4 (100.0) | 84.1 (17.0) | 11.2 (5.5) | 33.6 (77.5) | 33.3 (100.0) | 100.0 | 100.0 | 100.0 | 100.0 |
| Total | 100.0 (12.5) | 100.0 (33.7) | 100.0 (53.8) | 100.0 (100.0) | 100.0 (6.7) | 100.0 (16.4) | 100.0 (76.9) | 100.0 (100.0) | 7.2 | 6.5 | 19.1 | 13.3 |

Source : Farm Economic Survey in Phase II Survey.

Barind,

| Tenure. / Size Group | Owned Land. Small Farmers (including) L.L | Medium Farmers. | Large Farmers. | Total. | Leased Out Land. Small Farmers (including) L.L | Medium Farmers | Large Farmers | Total | Proportion of Leased Out Land to Owned Land. Small Farmers (including) L.L | Medium Farmers | Large Farmers. | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Owner. | 56.3 (12.0) | 61.8 (39.0) | 46.0 49.0) | 52.3 (100.0) | - | - | - | - (100.0) | - | -- | - | - |
| Owner Tenant | 35.7 (9.4) | 37.3 (29.0) | 46.7 (61.6) | 42.4 (100.0) | 9.8 (1.0) | 88.8 (23.8) | 64.0 (75.2) | 66.7 (100.0) | 2.4 | 18.3 | 28.0 | 22.9 |
| Absentee Landowner | 8.0 (17.0) | 0.9 (5.5) | 7.3 (77.5) | 5.3 (100.0) | 90.2 (17.0) | 11.2 (5.5) | 36.0 (77.5) | 33.3 (100.0) | 100.0 | 100.0 | 100.0 | 100.0 |
| Total. | 100.0 (11.2) | 100.0 (33.0) | 100.0 (55.8) | 100.0 (100.0) | 100.0 (6.6) | 100.0 (17.3) | 100.0 (52.1) | 100.0 (100.0) | 8.9 | 9.9 | 20.6 | 15.0 |

Source : Farm Economic Survey in Phase II Survey.

Table V-4-7. Landlessness

| Upazila | All Households | Landless I Number | Landless I % | Landless II Number | Landless II % | Landless III Number | Landless III % | Total Number | Total % |
|---|---|---|---|---|---|---|---|---|---|
| Niamatpur | 29,140 | 1,614 | 5.5 | 6,225 | 21.4 | 3,265 | 11.2 | 11,104 | 49.2 |
| Godagari | 30,810 | 3,005 | 9.8 | 7,904 | 25.6 | 3,282 | 10.7 | 14,191 | 46.1 |
| Paba | 29,688 | 2,494 | 8.4 | 7,115 | 24.0 | 6,332 | 21.3 | 15,941 | 53.7 |
| Tanore | 21,004 | 932 | 4.4 | 5,667 | 27.0 | 2,307 | 11.0 | 8,906 | 42.4 |
| Nachole | 12,468 | 3,304 | 26.5 | 3,342 | 26.8 | 1,278 | 10.3 | 7,924 | 63.6 |
| Total (Study Area) | 123,110 | 11,349 | 9.2 | 30,253 | 24.6 | 16,464 | 13.4 | 58,066 | 47.2 |
| Rajshahi (Region) | 866,387 | 53,711 | 6.2 | 182,677 | 21.1 | 155,615 | 18.0 | 392,203 | 45.3 |
| Bangladesh | 13,817,646 | 1,198,056 | 8.7 | | | 3,668,315 | 26.5 | | |
| | | | | 1,965.002 | 14.2 | | | 6,831,373 | 49.4 |

Source: The Bangladesh Census of Agriculture and Livestock, 1983-84

Note: Households of Landless I and Landless II are non-farm households.
Households of Landless III include small farm households of 0.02-0.2 ha.

FIG. V-6-1 ORGANIZATION OF UPAZILA ADMINISTRATION (PARISHAD)

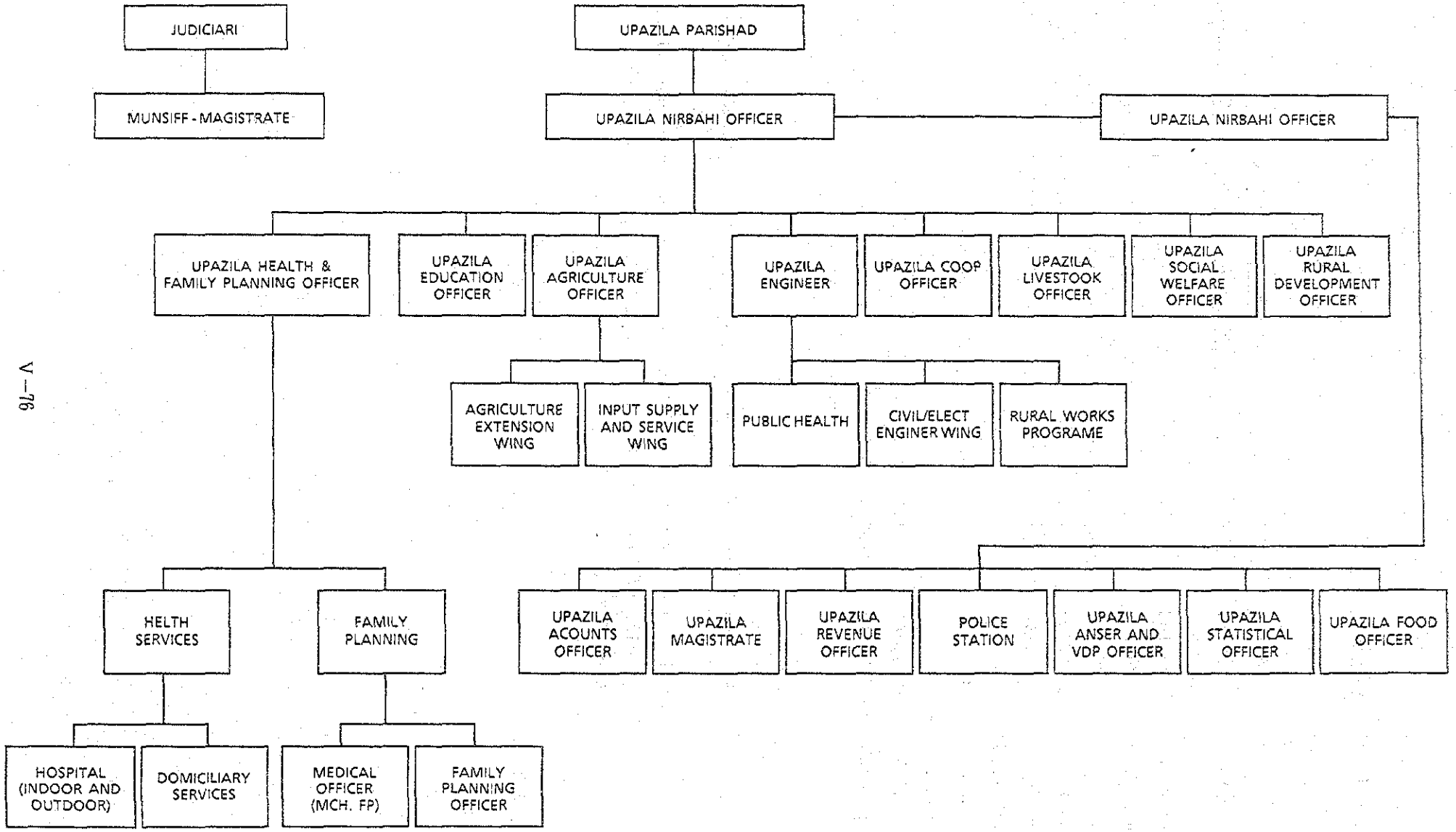

Table V-7-1. Status of KSS and BSS

| | | | Niamatpur | Godagari | Paba | Tanore | Nachole | Total |
|---|---|---|---|---|---|---|---|---|
| KSS | Number | Traditional | 9 | 8 | 2 | 12 | 8 | 39 |
| | | BRDB | 203 | 210 | 48 | 71 | 68 | 600 |
| | | Total | 212 | 218 | 50 | 83 | 76 | 639 |
| | Member of Farmers | Traditional | 1,700 | 320 | 50 | 380 | 1,525 | 3,975 |
| | | BRDB | 8,911 | 9,320 | 1,430 | 1,761 | 2,153 | 23,575 |
| | | Total | 10,611 | 9,640 | 1,480 | 2,141 | 3,678 | 27,550 |
| BSS | | BSS | 24 | 30 | 8 | 17 | 19 | 98 |
| | | | (63) | (63) | (63) | (63) | (63) | (315) |
| MBSS | Number | MBSS | 19 | 20 | 5 | 8 | 11 | 63 |
| | | | (26) | (26) | (25) | (26) | (26) | (129) |
| | | Total | 43 | 50 | 13 | 25 | 30 | 161 |
| | | | (89) | (89) | (88) | (89) | (89) | (444) |
| | Member of Enrol-ment | BSS | 815 | 906 | 127 | 399 | 556 | 2,803 |
| | | | (814) | (814) | (814) | (814) | (814) | (4,070) |
| | | MBSS | 690 | 421 | 103 | 484 | 219 | 1,917 |
| | | | (572) | (572) | (572) | (572) | (572) | (2,860) |
| | | Total | 1,505 | 1,327 | 230 | 883 | 775 | 4,720 |
| | | | (1,386) | (1,386) | (1,386) | (1,386) | (1,386) | (6,930) |

Sources: 1) District Cooperation Office, Rajshahi
2) Project Director's Office, BRDB, Rajshahi

Note: 1) Figures in parentheses mean target.

Figure V-7-2. Organizational Set-Up of Bangladesh Government (1985)

President

Vice-President

Prime Minister

| | | |
|---|---|---|
| Ministry of Defence | Ministry of Communication | Vice-Prime Minister |
| Ministry of Fisheries & Livestock | Ministry of Education | |
| Ministry of Home Affairs | Ministry of Food | |
| Ministry of Labour & Manpower | Ministry of Industries | |
| Ministry of Civil Aviation & Tourism | Ministry of Land Administration & Land Reforms | |
| Ministry of Posts & Telecommunication | Ministry of Energy and and Mineral Resources | |
| Ministry of Relief & Rehabilitation | Ministry of Irrigation, Water Resources & Flood Control | |
| Ministry of Social Welfare & Women's Affairs | Ministry of Religious Affairs | |
| Ministry of Agriculture | Ministry of Youth and Sports | |
| Ministry of Commerce | Ministry of Establishment | Department of Public Health Engineering |
| Minisry of Finance | Ministry of Foreign Affairs | Cooperative Division |
| Ministry of Health & Population Control | Ministry of Information | Environment Pollution Centre |
| Ministry of Jute & Textile | Ministry of Law & Justice | Bangladesh Rural Development Board |
| Ministry of Local Govt., Rural Dev., & Cooperatives | Ministry of Planning | |
| Ministry of Ports, Shipping & Inland Water Transport | Ministry of Works | |

Source: Bangladesh Bureau of Statistics, Statistical Pocket Book of Bangladesh, 1986

Table V-8-1. The Sectoral Distribution of the Bank Loans

| Sector | No. of Loans | Total Lending ($ million) | Percent of Total Lending |
|---|---|---|---|
| Agriculture and Agro-Industry | 31 | 847.88 | 51 |
| Power and Energy | 12 | 498.85 | 30 |
| Industry (including DFI) | 7 | 113.80 | 7 |
| Transport | 5 | 90.80 | 5 |
| Education | 3 | 56.50 | 3 |
| Public Health | 2 | 43.10 | 3 |
| Water Supply | 1 | 14.40 | 1 |
| Total | 61 | 1,665.33 | 100 |

Source: Appraisal Report of Fourth Crop Intensification Program, ADB.

Table V-8-2. Bank-wise Target, Disbursement and Recovery Position of Agricultural Credit

(Unit: Taka in crore)

| Credit Giving Agencies (Banks) | 1985/86 Target | 1985/86 Disbursement upto March 1986 (provisional) | 1985/86 Recover upto March 1986 (provisional) | 1984/85 Target | 1984/85 Disbursement upto March 1985 | 1984/85 Recovery upto March 1985 |
|---|---|---|---|---|---|---|
| Sonali | 317.60 ( 29.9%) | 59.93 | 107.00 | 276.25 | 235.26 | 75.16 |
| Janata | 60.00 ( 4.7) | 17.10 | 30.58 | 58.40 | 70.00 | 21.00 |
| Agrani | 116.16 ( 9.1) | 7.22 | 21.85 | 64.03 | 51.00 | 20.43 |
| Rupali | 23.09 ( 1.8) | 7.09 | 8.12 | 20.24 | 21.64 | 6.68 |
| Pubali | - | 3.00 | 8.52 | 14.25 | 14.00 | 4.50 |
| Uttari | - | - | 2.38 | 3.47 | 0.26 | 0.62 |
| Sub-total | 516.85 ( 40.5) | 94.34 | 178.44 | 436.64 | 392.16 | 128.39 |
| BKB | 718.40 ( 56.4) | 265.37 | 289.16 | 681.86 | 505.89 | 290.15 |
| BSBL | 39.75 ( 3.1) | 9.56 | 14.75 | 31.50 | 19.64 | 12.78 |
| Sub-total | 758.15 ( 59.5) | 274.93 | 303.91 | 713.36 | 525.53 | 302.93 |
| GRAND TOTAL | 1,275.00 (100.0) | 369.27p | 482.35p | 1,150.00 | 917.69 | 431.32 |

p = provisional

Source: Resume of the Activities of the Financial Institutions in Bangladesh (1985/86).

Table V-8-3. Duration of Loans and Method of Repayment

| | Duration of Loans (No. of Years) | Grace Period (Months) | Period of Repayment |
|---|---|---|---|
| (i) Medium Term | | | |
| a) Irrigation equipment | | | |
| Deep tubewells | 6 | 6 | semi-annually |
| Shallow tubewells | 5 | 6 | " |
| Low lift pumps | 5 | 6 | " |
| b) Off-farm rural enterprise | 5 | 12 | " |
| c) Pond aquaculture | 5 | 12 | annually |
| d) Livestock | | | |
| Goat | 2 | nil | full repayment at the end of 2nd year |
| Poultry | 2 | nil | semi-annually |
| Cattle | 2 | nil | full repayment at the end of 2nd year or after sale whichever is earlier. |
| Others | 2-5 | nil to 12 | semi-annually/annually depending upon the timing of sale proceeds received. |
| (ii) Short-term | | | |
| a) Crop loans | 8-10 months but less than 12 months | | |
| b) Off-farm enterprises | 12 months to be paid semi-annually | | |
| c) Pond aquaculture | 12 months to be paid semi-annually | | |

TABLE V-8-4. SHORT-TERM AND MEDIUM-TERM LOANS

| Term / Channel | Short-Term | | | Medium-Term | | |
|---|---|---|---|---|---|---|
| | | Interest | Margines | | Interest | Margines |
| UCCA/ KSS OR UCCA/ BSS Channel | BKB Sonali to UCCA | 10% | 7% (Bad debt .....2 UCCA Service Charge .....4 UCCA Commission1) | BKB Sonali to UCCA | 11% | 3% (Bad debt.....2 UCCA Commission1) |
| | UCCA KSS to UCCA BSS | 17% | 2% (KSS Commission 1 (BSS) KSS Manager ...1 (BSS) | UCCA KSS to UCCA BSS | 14% | 2% (KSS BSS Commission 1 KSS BSS Manager....1 |
| | KSS Society to BSS Member | 19% | | KSS Farmers to BSS Landless | 16% | |
| | (Penal interest 3%) | | | (Penal Interest 6% ) | | |
| Direct Channel | | Interest | Margines | | Interest | Margines |
| | | 12% | 4% (Bank Service Charge .....4 | | 13% | 3% (Bank Service Charge ..... 3%) |
| | Farmer | 16% | | Farmer | 16% | |
| | (Penal interest 6%) | | | (Penal interest 6%) | | |
| | Note : Mainly loan for crop. | | | Note : Loan for land development, orchard, cattle. | | |

Source : 1) Office of the Project Director, BRDB, Rajshahi.
2) Farm Economic Survey in Phase II Survey.

Table V-8-5. North West Rural Development Project under BRDB

| Short - term. | | | Medium - term. | | |
|---|---|---|---|---|---|
| | Interest | Margin | | Interest | Margin |
| Sonari Bank to UCCA | % 5.5 | | Sonari Bank to UCCA | % 5.0 | |
| | | 3.5% | | | 3.5% |
| | | bad debt.....2.0<br>UCCA commission..1.5 | | | bad debt.....2.0<br>UCCA Commission...1.5 |
| UCCA to KSS BSS | 9.0% | | UCCA to KSS BSS | 8.5 | |
| | | 5.0% | | | 3.5% |
| | | KSS BSS Manager.....2.0 | | | KSS BSS Manager.....2.0 |
| | | KSS BSS Commission..3.0 | | | KSS BSS Commission....1.5 |
| KSS BSS to Society member | % 14.0 | | KSS BSS to Society member | % 12.0 | |
| (Penal interest 6.0%) | | | (Penal interest 6.0%) | | |

Source ... Office of the Project Director, BRDB, Rajshahi.

Appendix EC-2

Table V-8-6. BANGLADESH KRISHI BANK

Term-Wise Distribution of Loans

(Financial year)

(Amount in Crore Taka)

| Particular of Term. | 1981/82 | | 1982/83 | | 1983/84 | | 1984/85 | | 1985/86* Up to March 1986 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Amount. | % | Amount. | % | Amount. | % | Amount. | % | Amount/ | % |
| Short | 166.63 | 61.48 | 258.50 | 64.49 | 371.59 | 62.72 | 361.51 | 58.81 | 174.97 | 60.51 |
| Medium | 58.42 | 21.55 | 60.34 | 15.06 | 126.86 | 21.42 | 188.79 | 40.71 | 70.73 | 24.46 |
| Long | 45.49 | 16.97 | 81.97 | 20.45 | 93.97 | 15.86 | 64.43 | 10.48 | 43.46 | 15.03 |
| Total | 271.04 | 100.00 | 400.81 | 100.00 | 592.42 | 100.00 | 614.73 | 100.00 | 289.16 | 100.00 |

Source : Resume of the Activities of the Financial Inititutions of Bangladesh(1985/86).

Appendix EC-3

Table V-8-7.

BANGLADESH KRISHI BANK

Distribution of Loans According to Size of Holding

(Financial year)

(In percentage)

| Size of Holdings. | 1981/82 | | 1982/83 | | 1983/84 | | 1984/85 | | 1985/86* | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Borrowers. | Loan. | Borrowers. | Loan. | Borrowers. | Loan. | Borrowers. | Loan. | Borrowers. | Loan |
| Landless and up to 1.0 hectares. | 67.19 | 34.86 | 73.17 | 49.18 | 79.04 | 61.72 | 75.95 | 49.23 | 76.65 | 50.17 |
| Over 1.0 hectares to 8.0 hectares. | 25.97 | 30.63 | 22.35 | 28.96 | 17.86 | 20.10 | 19.46 | 21.80 | 20.16 | 25.68 |
| Over 3.0 hectares to 5.0 hectares. | 5.82 | 18.49 | 3.84 | 10.92 | 2.69 | 6.00 | 3.91 | 12.52 | 2.75 | 9.07 |
| Over 5.0 hectares. | 1.02 | 16.02 | 0.63 | 10.94 | 0.41 | 12.18 | 0.68 | 16.45 | 0.44 | 15.08 |
| Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

Source : The above.

* Figures are Provisional.

Appendix EC-3

Table V-8-7.

BANGLADESH KRISHI BANK

Distribution of Loans According to Size of Holding

(Financial year)

(In percentage)

| Size of Holdings. | 1981/82 | | 1982/83 | | 1983/84 | | 1984/85 | | 1985/86* | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Borrowers. | Loan. | Borrowers. | Loan. | Borrowers. | Loan. | Borrowers. | Loan. | Borrowers. | Loan |
| Landless and up to 1.0 hectares. | 67.19 | 34.86 | 73.17 | 49.18 | 79.04 | 61.72 | 75.95 | 49.23 | 76.65 | 50.17 |
| Over 1.0 hectares to 8.0 hectares. | 25.97 | 30.63 | 22.35 | 28.96 | 17.86 | 20.10 | 19.46 | 21.80 | 20.16 | 25.68 |
| Over 3.0 hectares to 5.0 hectares. | 5.82 | 18.49 | 3.84 | 10.92 | 2.69 | 6.00 | 3.91 | 12.52 | 2.75 | 9.07 |
| Over 5.0 hectares. | 1.02 | 16.02 | 0.63 | 10.94 | 0.41 | 12.18 | 0.68 | 16.45 | 0.44 | 15.08 |
| Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

Source : The above.

* Figures are Provisional.

Table V-8-8. Bangladesh Krishi Bank - Loan Distribution According to Size of the Loan (Financial Year)

(Unit: Percentage)

| Size of Loans | 1981/82 | | 1982/83 | | 1983/84 | | 1984/85 | | 1985/86/* | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Borrowers | Loan | Borrowers | Loan | Borrowers | Loan | Borrowers | Loan | Borrowers | Loan |
| Up to Tk. 1,000 | 22.40 | 3.40 | 17.16 | 4.23 | 13.97 | 2.46 | 11.80 | 1.85 | 9.01 | 1.73 |
| Over Tk. 1,000 to Tk. 3,000 | 51.46 | 13.25 | 48.09 | 24.07 | 44.68 | 19.61 | 42.86 | 18.67 | 42.60 | 17.30 |
| Over Tk. 3,000 to Tk. 10,000 | 18.52 | 11.52 | 29.88 | 26.05 | 37.21 | 33.51 | 41.65 | 34.10 | 42.68 | 35.68 |
| Over Tk. 10,000 to Tk. 20,000 | 3.97 | 6.00 | 1.30 | 3.88 | 1.63 | 4.75 | 1.16 | 2.48 | 1.87 | 3.09 |
| Over Tk. 20,000 to Tk. 50,000 | 3.32 | 10.13 | 2.91 | 15.96 | 2.22 | 13.35 | 1.83 | 9.97 | 1.93 | 10.07 |
| Over Tk. 50,000 | 0.33 | 55.59 | 0.16 | 25.81 | 0.29 | 26.32 | 0.70 | 32.93 | 1.91 | 31.13 |
| Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

Note: /* ... Figures are Provisional.

Table V-9-1. Family Characteristics

| By Operational Holdings | Family Size | Sex | | Age 10+ Yrs. | | Main Occupation of the Head of the Household | | | Occupational Characteristics of All Persons of Aged 10+ Years | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Agriculture | | Non-Agri-culture | Agriculture | | | | | | | | |
| | | | | | | | | | Own Farm | | | Other Farm | | | Agriculture | | |
| | | Male | Female | Male | Female | Own Farm | Other Farm | | FT | M | S | FT | M | S | FT | M | S |
| | (No.) | -(%)- | | -(%)- | | -(%)- | | | ---(%)------ | | | | | | ---(%)----- | | |
| Landless | 4.7 | 49.5 | 51.5 | 69.0 | 70.0 | 1.8 | 52.7 | 45.5 | 0.0 | 2.8 | 22.4 | 56.6 | 24.5 | 7.0 | 8.4 | 7.0 | 3.5 |
| Small Farm | 5.5 | 55.5 | 44.5 | 69.5 | 74.4 | 57.8 | 22.1 | 20.1 | 28.7 | 34.8 | 25.1 | 6.5 | 18.2 | 20.2 | 3.2 | 8.5 | 15.8 |
| Medium Farm | 6.9 | 56.0 | 44.0 | 79.7 | 75.5 | 81.7 | 2.4 | 15.9 | 61.1 | 16.5 | 9.1 | 0.6 | 5.3 | 9.7 | 7.1 | 6.2 | 9.1 |
| Large Farm | 9.4 | 58.2 | 41.8 | 80.6 | 71.4 | 83.1 | 0.0 | 16.9 | 54.9 | 15.0 | 12.8 | 1.5 | 5.3 | 1.5 | 12.8 | 10.5 | 9.8 |
| Total/Ave. | 6.3 | 55.2 | 44.8 | 75.5 | 73.4 | 56.4 | 19.4 | 24.2 | 41.1 | 19.2 | 16.5 | 11.8 | 13.3 | 11.0 | 6.8 | 8.0 | 10.2 |



NOTES: Landless = those having no opreational lands or have lands not exceeding 0.2 ha.
Small Farm = those having operational holdings ranging from 0.2 to 1.0 ha.
Medium Farm = those having operational holdings from 1.0 to 3.0 ha.
Large Farm = those having operational holdings 3 ha and above.
FT: Full time M: Mainly S: Secondary

Source: Farm Economic Survey

Table V-9-2. Balance Sheet of Farm Land

| | | Owned Land | Leased Out | Leased In | Operated Land |
|---|---|---|---|---|---|
| Small Farms | (ha) | 75.23 | 12.95 | 31.16 | 93.44 |
| | (%) | 100.0 | 17.2 | 41.4 | 124.2 |
| Medium Farms | (ha) | 238.75 | 17.14 | 75.81 | 297.42 |
| | (%) | 100.0 | 7.2 | 31.8 | 124.6 |
| Large Farms | (ha) | 316.53 | 29.82 | 22.94 | 309.65 |
| | (%) | 100.0 | 9.4 | 7.2 | 97.8 |
| Total | (ha) | 630.51 | 59.91 | 129.91 | 700.51 |
| | (%) | 100.0 | 9.5 | 20.6 | 111.1 |

Source: Farm Economic Survey

Table V-9-3. Distribution for Home Consumption and Sold of Produced Foodgrain

| | | | Landless | Small Farms | Medium Farms | Large Farms | Total |
|---|---|---|---|---|---|---|---|
| No. of Farm Households | | | 112 | 153 | 170 | 65 | 500 |
| No. of Families | | | 526 | 842 | 1,173 | 611 | 3,152 |
| PADDY | Total Production | t | 18.83 | 284.97 | 825.63 | 929.0 | 2,058.43 |
| | | % | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| | Home Consumption | t | 13.04 | 150.59 | 284.21 | 164.86 | 612.70 |
| | | % | 69.3 | 52.8 | 34.4 | 17.7 | 29.8 |
| | Sold | t | 0.64 | 81.73 | 468.83 | 725.91 | 1,277.1 |
| | | % | 3.4 | 28.7 | 56.8 | 78.1 | 62.0 |
| | Per H.H. Sold | t | 0.01 | 0.53 | 2.76 | 11.17 | 2.55 |
| | Per Capita Consumption | kg | 35.80 | 178.85 | 242.29 | 269.82 | 194.38 |
| WHEAT | Total Production | t | 0.56 | 12.14 | 31.73 | 20.61 | 65.04 |
| | | % | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| | Home Consumption | t | 0.51 | 4.38 | 6.11 | 3.39 | 14.39 |
| | | % | 91.1 | 36.1 | 19.3 | 16.4 | 22.1 |
| | Sold | t | - | 4.88 | 19.52 | 15.09 | 39.49 |
| | | % | - | 40.2 | 61.5 | 73.2 | 60.7 |
| | Per H.H. Sold | t | - | 0.03 | 0.11 | 0.23 | 0.08 |
| | Per Capita Consumption | kg | 0.97 | 5.20 | 5.21 | 5.5 | 4.57 |
| Average Per Capita Per Annum Quantity Consumed on Foodgrains | | kg | 36.77 | 184.05 | 247.50 | 275.37 | 198.95 |
| Sufficient degree to 1,950 kilo calories per capita per day (equivalent to 270 kg of foodgrains per capita per year/*) | | | 13.6% | 68.2% | 91.7% | 102.0% | 73.7% |

NOTE: /* ... Assuming that 1,925 kilo calories which are the average calorie intake per capita per day of the Bangladesh people are taken from foodgrains, 482 grams (equivalent to 740 grams of paddy) per capita per day are necessary.

SOURCE: Farm Economic Survey.

Table V-9-3. Distribution for Home Consumption and Sold of Produced Foodgrain

| | | | Landless | Small Farms | Medium Farms | Large Farms | Total |
|---|---|---|---|---|---|---|---|
| No. of Farm Households | | | 112 | 153 | 170 | 65 | 500 |
| No. of Families | | | 526 | 842 | 1,173 | 611 | 3,152 |
| PADDY | Total Production | t | 18.83 | 284.97 | 825.63 | 929.0 | 2,058.43 |
| | | % | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| | Home Consumption | t | 13.04 | 150.59 | 284.21 | 164.86 | 612.70 |
| | | % | 69.3 | 52.8 | 34.4 | 17.7 | 29.8 |
| | Sold | t | 0.64 | 81.73 | 468.83 | 725.91 | 1,277.1 |
| | | % | 3.4 | 28.7 | 56.8 | 78.1 | 62.0 |
| | Per H.H. Sold | t | 0.01 | 0.53 | 2.76 | 11.17 | 2.55 |
| | Per Capita Consumption | kg | 35.80 | 178.85 | 242.29 | 269.82 | 194.38 |
| WHEAT | Total Production | t | 0.56 | 12.14 | 31.73 | 20.61 | 65.04 |
| | | % | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| | Home Consumption | t | 0.51 | 4.38 | 6.11 | 3.39 | 14.39 |
| | | % | 91.1 | 36.1 | 19.3 | 16.4 | 22.1 |
| | Sold | t | - | 4.88 | 19.52 | 15.09 | 39.49 |
| | | % | - | 40.2 | 61.5 | 73.2 | 60.7 |
| | Per H.H. Sold | t | - | 0.03 | 0.11 | 0.23 | 0.08 |
| | Per Capita Consumption | kg | 0.97 | 5.20 | 5.21 | 5.5 | 4.57 |
| Average Per Capita Per Annum Quantity Consumed on Foodgrains | | kg | 36.77 | 184.05 | 247.50 | 275.37 | 198.95 |
| Sufficient degree to 1,950 kilo calories per capita per day (equivalent to 270 kg of foodgrains per capita per year/*) | | | 13.6% | 68.2% | 91.7% | 102.0% | 73.7% |

NOTE: /* ... Assuming that 1,925 kilo calories which are the average calorie intake per capita per day of the Bangladesh people are taken from foodgrains, 482 grams (equivalent to 740 grams of paddy) per capita per day are necessary.

SOURCE: Farm Economic Survey.

Table V-9-4. Farm Household Economy Per H.H. by Farm Size

(Unit: Tk.)

| | Landless | Small Farms | Medium Farms | Large Farms | Total Average |
|---|---|---|---|---|---|
| Agricultural Gross Return | 964 (11.3%) | 11,679 (55.0%) | 28,572 (70.0%) | 80,381 (60.4%) | 23,921 (60.4%) |
| Non-agricultural Receipt | 7,600 (88.7) | 9,564 (45.0) | 12,227 (30.0) | 52,738 (39.6) | 15,683 (39.6) |
| Farm Household Gross Income | 8,564 (100.0) | 21,243 (100.0) | 40,799 (100.0) | 133,119 (100.0) | 39,604 (100.0) |
| Agricultural Income | 199 (2.5%) | 3,219 (24.9%) | 8,142 (38.8%) | 29,028 (35.3%) | 7,619 (32.2%) |
| Non-agricultural Income | 7,600 (96.5) | 9,564 (73.9) | 12,227 (58.2) | 52,738 (64.2) | 15,683 (66.4) |
| Gifts, etc. | 79 (1.0) | 161 (1.2) | 622 (3.0) | 438 (0.5) | 335 (1.4) |
| Farm Household Income | 7,878 (100.0) | 12,944 (100.0) | 20,991 (100.0) | 82,204 (100.0) | 23,637 (100.0) |
| Interest of Debts | 29 | 194 | 315 | 995 | 351 |
| Tax, etc. | 12 | 155 | 584 | 2,589 | 584 |
| Disposable Income | 7,837 | 12,595 | 20,092 | 78,620 | 22,702 |
| Household Expenditures | 8,301 | 11,887 | 19,224 | 33,775 | 16,424 |
| Farm Household Economic Surplus | -464 | 708 | 868 | 44,845 | 6,278 |
| Average Farm Size (persons) | 4.7 | 5.5 | 6.9 | 9.4 | 6.3 |
| Per Capita Farm Household Gross Return | 1,822 | 3,755 | 5,811 | 13,825 | 6,147 |
| Farm Household Income | 1,676 | 2,353 | 3,042 | 8,745 | 3,752 |
| Disposable Income | 1,667 | 2,290 | 2,912 | 8,364 | 3,603 |
| Household Expenditures | 1,766 | 2,161 | 2,786 | 3,593 | 2,607 |
| Economic Surplus | -99 | 129 | 126 | 4,771 | 997 |
| Monthly Farm Household Income | 657 | 1,079 | 1,749 | 6,850 | 1,970 |
| Monthly Per Capita Household Expenditure | 147 | 189 | 232 | 299 | 217 |

Note: Agricultural Gross Return and Production Cost include returns and inputs in kind and self-consumption.

Source: Farm Economic Survey

Table V-9-5. Household Expenditure per H.H.

(Unit: Taka/Year)

| Size/Class | | Food (Rice + Wheat) Purchased | Food (Rice + Wheat) Farm-Used and others | Food (Rice + Wheat) Sub-total | Housing | Clothing | Education | Fuel | Medical | Others | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Landless | No. | 4,973 | 1,253 | 6,226 | 332 | 583 | 18 | 581 | 35 | 52.6 | 8,301 |
| | % | (78.9) | (21.1) | (100) | | | | | | | |
| | | | | 75.0 | 4.0 | 7.0 | 0.2 | 7.0 | 0.4 | 6.4 | 100.0 |
| Small Farm | No. | 1,388 | 6,576 | 7,964 | 975 | 853 | 105 | 974 | 86 | 930 | 11,887 |
| | % | (17.4) | (82.6) | (100) | | | | | | | |
| | | | | 67.0 | 8.2 | 7.2 | 0.9 | 8.2 | 0.7 | 7.8 | 100.0 |
| Medium Farm | No. | 33 | 11,501 | 11,534 | 1,730 | 1,538 | 192 | 1,730 | 143 | 2,357 | 19,224 |
| | % | (0.3) | (99.7) | (100) | | | | | | | |
| | | | | 60.0 | 9.0 | 8.0 | 1.0 | 9.0 | 0.7 | 12.3 | 100.0 |
| Large Farm | No. | 0 | 17,563 | 17,563 | 3,378 | 3,715 | 675 | 2,364 | 337 | 5,743 | 33,775 |
| | % | (0) | (100.0) | (100.0) | | | | | | | |
| | | | | 52.0 | 10.0 | 11.0 | 2.0 | 7.0 | 0.1 | 17.0 | 100.0 |
| Total/Ave. | No. | 1,550 | 8,487 | 10,037 | 1,400 | 1,378 | 189 | 1,324 | 126 | 1,970 | 16,424 |
| | % | (15.4) | (84.6) | (100.0) | | | | | | | |
| | | | | 61.1 | 8.5 | 8.4 | 1.2 | 8.0 | 0.8 | 12.0 | 100.0 |
| Total/Ave. of B.H.E. /* | | (Food and Drinks) | | 69.0% | 7.0% | 8.1% | 0.9% | 7.1% | 1.0% | 6.9% | 100.0% |

Source: Farm Economic Survey

/* ... Bangladesh Household Expenditure survey, 1981-82, B.B.S.

Table V-9-6-1. Family Characteristics.

| Upazila | No. of HHolds | Sex (%) Male | Sex (%) Female | % aged 10+ yrs Male | % aged 10+ yrs Female | % aged 10+ yrs Total | Family size |
|---|---|---|---|---|---|---|---|
| | | | Landless | | | | |
| Paba | 19 | 45.3 | 54.7 | 69.2 | 59.6 | 64.0 | 4.5 |
| Barind | 93 | 50.3 | 49.7 | 68.9 | 72.2 | 70.6 | 4.7 |
| Godagari | 42 | 52.9 | 47.1 | 67.6 | 72.9 | 70.1 | 4.9 |
| Tanore | 14 | 39.7 | 60.3 | 73.9 | 65.7 | 69.0 | 4.1 |
| Niamatpur | 37 | 50.9 | 49.1 | 69.3 | 74.1 | 71.7 | 4.7 |
| Total/Av | 112 | 49.5 | 51.5 | 69.0 | 70.0 | 69.5 | 4.7 |
| | | | Small farms | | | | |
| Paba | 43 | 56.2 | 43.8 | 67.6 | 67.3 | 67.4 | 6.0 |
| Barind | 110 | 55.1 | 46.9 | 70.3 | 77.4 | 73.5 | 5.3 |
| Godagari | 51 | 55.1 | 44.9 | 69.3 | 72.9 | 70.9 | 5.8 |
| Tanore | 29 | 56.3 | 43.7 | 71.4 | 86.8 | 78.2 | 5.8 |
| Niamatpur | 30 | 53.7 | 46.3 | 71.2 | 75.4 | 73.2 | 4.1 |
| Total/Av | 153 | 55.5 | 44.5 | 69.5 | 74.4 | 71.7 | 5.5 |
| | | | Medium farms | | | | |
| Paba | 29 | 54.3 | 45.7 | 78.2 | 68.0 | 73.5 | 7.6 |
| Barind | 141 | 56.4 | 43.6 | 80.0 | 77.3 | 78.8 | 6.8 |
| Godagari | 44 | 57.0 | 43.0 | 74.9 | 79.9 | 77.0 | 7.6 |
| Tanore | 45 | 54.8 | 45.2 | 81.1 | 74.8 | 78.3 | 6.6 |
| Niamatpur | 52 | 57.1 | 42.9 | 84.3 | 77.0 | 81.2 | 6.2 |
| Total/Av | 170 | 56.0 | 44.0 | 79.7 | 75.5 | 77.8 | 6.9 |
| | | | Large farms | | | | |
| Paba | 9 | 61.9 | 38.1 | 75.7 | 58.1 | 69.0 | 12.6 |
| Barind | 56 | 57.3 | 42.7 | 81.8 | 74.1 | 78.5 | 8.9 |
| Godagari | 13 | 58.2 | 41.8 | 77.5 | 80.4 | 78.7 | 9.4 |
| Tanore | 12 | 56.2 | 43.8 | 81.8 | 68.3 | 75.9 | 11.4 |
| Niamatpur | 31 | 57.6 | 42.4 | 83.9 | 74.3 | 79.8 | 7.7 |
| Total/Av | 65 | 58.2 | 41.8 | 80.6 | 71.4 | 76.7 | 9.4 |
| | | | (combined statistics, all groups) | | | | |
| Paba | 100 | 55.2 | 44.8 | 72.7 | 65.0 | 69.2 | 6.8 |
| Barind | 400 | 55.2 | 44.8 | 76.3 | 75.7 | 76.0 | 6.2 |
| Godagari | 150 | 55.7 | 44.3 | 72.0 | 76.2 | 73.9 | 6.4 |
| Tanore | 100 | 54.2 | 45.8 | 78.2 | 75.5 | 77.0 | 6.6 |
| Niamatpur | 150 | 55.5 | 44.5 | 79.6 | 75.4 | 77.7 | 5.7 |
| Total/Av | 500 | 55.2 | 44.8 | 75.5 | 73.4 | 74.6 | 6.3 |

Table V-9-6-2. Main Occupation of the Head of the Household

(in percentage)

| Upazila | Agricul-ture | Labour farm | Labour off-farm | Service | Busi-ness | Teaching | Others | Total |
|---|---|---|---|---|---|---|---|---|
| | | | Landless | | | | | |
| Paba | 0.0 | 10.5 | 84.1 | 0.0 | 5.3 | 0.0 | 0.0 | 100.0 |
| Barind | 2.2 | 61.3 | 9.7 | 7.5 | 7.5 | 3.2 | 8.6 | 100.0 |
| Godagari | 0.0 | 81.0 | 11.9 | 2.4 | 0.0 | 2.4 | 2.4 | 100.0 |
| Tanore | 0.0 | 50.0 | 14.3 | 0.0 | 7.1 | 0.0 | 28.6 | 100.0 |
| Niamatpur | 5.4 | 43.2 | 5.4 | 16.2 | 16.2 | 5.4 | 8.1 | 100.0 |
| Total/Av | 1.8 | 52.7 | 22.3 | 6.3 | 7.1 | 2.7 | 7.1 | 100.0 |
| | | | Small farms | | | | | |
| Paba | 60.5 | 27.9 | 9.3 | 0.0 | 0.0 | 0.0 | 2.3 | 100.0 |
| Barind | 56.8 | 19.8 | 3.6 | 7.2 | 11.7 | 0.9 | 0.9 | 100.0 |
| Godagari | 72.5 | 11.8 | 2.0 | 5.9 | 7.8 | 0.0 | 0.0 | 100.0 |
| Tanore | 30.0 | 26.7 | 3.3 | 13.3 | 23.3 | 0.0 | 3.3 | 100.0 |
| Niamatpur | 53.3 | 26.7 | 6.7 | 3.3 | 6.7 | 3.3 | 0.0 | 100.0 |
| Total/Av | 57.8 | 22.1 | 5.5 | 5.2 | 8.4 | 0.6 | 1.3 | 100.0 |
| | | | Medium farms | | | | | |
| Paba | 79.3 | 6.9 | 3.4 | 10.3 | 0.0 | 0.0 | 0.0 | 100.0 |
| Barind | 82.1 | 1.4 | 0.7 | 10.0 | 2.9 | 1.4 | 1.4 | 100.0 |
| Godagari | 95.5 | 0.0 | 0.0 | 2.3 | 0.0 | 2.3 | 0.0 | 100.0 |
| Tanore | 63.6 | 2.3 | 0.0 | 20.5 | 9.1 | 0.0 | 4.5 | 100.0 |
| Niamatpur | 86.5 | 1.9 | 1.9 | 7.7 | 0.0 | 1.9 | 0.0 | 100.0 |
| Total/Av | 81.7 | 2.4 | 1.2 | 10.1 | 2.4 | 1.2 | 1.2 | 100.0 |
| | | | Large farms | | | | | |
| Paba | 55.6 | 0.0 | 0.0 | 44.4 | 0.0 | 0.0 | 0.0 | 100.0 |
| Barind | 87.5 | 0.0 | 0.0 | 10.7 | 1.8 | 0.0 | 0.0 | 100.0 |
| Godagari | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 |
| Tanore | 83.3 | 0.0 | 0.0 | 8.3 | 8.3 | 0.0 | 0.0 | 100.0 |
| Niamatpur | 83.9 | 0.0 | 0.0 | 16.1 | 0.0 | 0.0 | 0.0 | 100.0 |
| Total/Av | 83.1 | 0.0 | 0.0 | 15.4 | 1.5 | 0.0 | 0.0 | 100.0 |
| | | | (combined statistics, all groups) | | | | | |
| Paba | 54.0 | 16.0 | 21.0 | 7.0 | 1.0 | 0.0 | 1.0 | 100.0 |
| Barind | 57.0 | 20.3 | 3.5 | 8.8 | 6.3 | 1.5 | 2.8 | 100.0 |
| Godagari | 61.3 | 26.7 | 4.0 | 3.3 | 2.7 | 1.3 | 0.6 | 100.0 |
| Tanore | 47.0 | 16.0 | 3.0 | 14.0 | 13.0 | 0.0 | 7.0 | 100.0 |
| Niamatpur | 59.3 | 16.7 | 3.3 | 10.7 | 5.3 | 2.7 | 2.0 | 100.0 |
| Total/Av | 56.4 | 19.4 | 7.0 | 8.4 | 5.2 | 1.2 | 2.4 | 100.0 |

Table V-9-6-3.

Occupational Characteristics of All Active Persons of 10-years plus Groups

A. Male

| Upazila | Total active | own farm FT | own farm M | own farm S | other farms FT | other farms M | other farms S | non-agriculture FT | non-agriculture M | non-agriculture S |
|---|---|---|---|---|---|---|---|---|---|---|
| **Landless** | | | | | | | | | | |
| Paba | 21 | 0.0 | 4.8 | 57.1 | 23.8 | 66.7 | 4.8 | 0.0 | 4.8 | 9.5 |
| Barind | 122 | 0.0 | 2.5 | 16.4 | 62.3 | 17.2 | 7.4 | 9.8 | 7.4 | 2.5 |
| Godagari | 63 | 0.0 | 1.6 | 14.3 | 74.6 | 19.0 | 9.5 | 0.0 | 4.8 | 1.6 |
| Tanore | 11 | 0.0 | 0.0 | 45.5 | 45.5 | 45.5 | 9.1 | 0.0 | 9.1 | 0.0 |
| Niamatpur | 48 | 0.0 | 4.2 | 12.5 | 52.1 | 8.3 | 4.2 | 25.0 | 10.4 | 4.2 |
| Total/Av | 143 | 0.0 | 2.8 | 22.4 | 56.6 | 24.5 | 7.0 | 8.4 | 7.0 | 3.5 |
| **Small farms** | | | | | | | | | | |
| Paba | 81 | 18.5 | 39.5 | 28.4 | 9.9 | 24.7 | 37.0 | 1.2 | 6.2 | 4.9 |
| Barind | 166 | 33.7 | 32.5 | 23.5 | 4.8 | 15.1 | 12.0 | 4.2 | 9.6 | 21.1 |
| Godagari | 86 | 46.5 | 19.8 | 23.3 | 4.7 | 15.1 | 9.3 | 5.8 | 8.1 | 12.8 |
| Tanore | 41 | 12.2 | 39.0 | 36.6 | 7.3 | 24.4 | 14.6 | 2.4 | 14.6 | 19.5 |
| Niamatpur | 39 | 28.2 | 53.8 | 10.3 | 2.6 | 5.1 | 15.4 | 2.6 | 7.7 | 41.0 |
| Total/Av | 247 | 28.7 | 34.8 | 25.1 | 6.5 | 18.2 | 20.2 | 3.2 | 8.5 | 15.8 |
| **Medium farms** | | | | | | | | | | |
| Paba | 66 | 57.6 | 15.2 | 16.7 | 1.5 | 10.6 | 13.6 | 6.1 | 9.1 | 6.1 |
| Barind | 274 | 63.1 | 16.8 | 7.3 | 0.3 | 4.0 | 8.8 | 7.3 | 5.1 | 9.9 |
| Godagari | 105 | 77.1 | 7.6 | 2.9 | 0.0 | 0.0 | 3.8 | 12.4 | 2.9 | 2.9 |
| Tanore | 77 | 49.4 | 23.4 | 11.7 | 0.0 | 3.9 | 9.1 | 2.6 | 9.1 | 14.3 |
| Niamatpur | 92 | 58.7 | 21.7 | 8.7 | 1.1 | 8.7 | 14.1 | 5.4 | 4.3 | 14.1 |
| Total/Av | 340 | 62.1 | 16.5 | 9.1 | 0.6 | 5.3 | 9.7 | 7.1 | 6.2 | 9.1 |
| **Large farms** | | | | | | | | | | |
| Paba | 26 | 46.2 | 11.5 | 19.2 | 7.7 | 3.8 | 3.8 | 23.1 | 7.7 | 3.8 |
| Barind | 107 | 57.0 | 15.9 | 11.2 | 0.0 | 5.6 | 0.9 | 10.3 | 11.2 | 11.2 |
| Godagari | 29 | 72.4 | 3.4 | 13.8 | 0.0 | 0.0 | 0.0 | 10.3 | 13.8 | 3.4 |
| Tanore | 21 | 66.7 | 14.3 | 9.5 | 0.0 | 0.0 | 0.0 | 0.0 | 19.0 | 14.3 |
| Niamatpur | 57 | 45.6 | 22.8 | 10.5 | 0.0 | 10.5 | 1.8 | 14.0 | 7.0 | 14.0 |
| Total/Av | 133 | 54.9 | 15.0 | 12.8 | 1.5 | 5.3 | 1.5 | 12.8 | 10.5 | 9.8 |
| **(combined statistics, all groups)** | | | | | | | | | | |
| Paba | 194 | 33.5 | 23.7 | 26.3 | 8.2 | 26.8 | 21.1 | 5.7 | 9.3 | 5.7 |
| Barind | 669 | 43.3 | 17.9 | 13.6 | 12.9 | 9.4 | 8.1 | 7.2 | 7.6 | 11.5 |
| Godagari | 283 | 50.2 | 9.5 | 12.7 | 18.0 | 8.8 | 6.4 | 7.4 | 6.0 | 5.7 |
| Tanore | 150 | 38.0 | 24.7 | 20.7 | 5.3 | 12.0 | 9.3 | 2.0 | 12.0 | 14.7 |
| Niamatpur | 236 | 38.6 | 23.7 | 10.2 | 11.4 | 8.5 | 9.3 | 10.2 | 6.8 | 16.5 |
| Total/Av | 863 | 41.1 | 19.2 | 16.5 | 11.8 | 13.3 | 11.0 | 6.8 | 8.0 | 10.2 |

Note: FT = Full time, M = Mainly, S = Secondary

(Table V-9-6-3, continued)

B. Female

| Upazila | Total active | House work | own (- agri-) other farms | | | | | non-agriculture | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | M | S | FT | M | S | FT | M | S |
| **Landless** | | | | | | | | | | |
| Paba | 18 | 88.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.1 | 0.0 |
| Barind | 110 | 96.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.6 | 0.9 |
| Godagari | 53 | 100. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Tanore | 13 | 84.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 15.4 | 0.0 |
| Niamatpur | 44 | 95.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.5 | 2.3 |
| Total/Av | 128 | 85.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.2 | 0.7 |
| **Small farms** | | | | | | | | | | |
| Paba | 60 | 100. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Barind | 136 | 98.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 1.5 | 0.7 |
| Godagari | 65 | 100. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Tanore | 35 | 94.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.7 | 5.7 | 2.9 |
| Niamatpur | 36 | 100. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total/Av | 196 | 99.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.5 |
| **Medium farms** | | | | | | | | | | |
| Paba | 45 | 100. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Barind | 217 | 98.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.4 | 0.5 | 0.0 |
| Godagari | 77 | 96.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.9 | 0.0 | 0.0 |
| Tanore | 55 | 98.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 | 0.0 | 0.0 |
| Niamatpur | 85 | 100. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total/Av | 262 | 98.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 0.4 | 0.0 |
| **Large farms** | | | | | | | | | | |
| Paba | 16 | 93.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.3 | 0.0 | 0.0 |
| Barind | 109 | 99.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 | 0.0 |
| Godagari | 29 | 96.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 | 0.0 | 0.0 |
| Tanore | 23 | 100. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Niamatpur | 57 | 100. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total/Av | 125 | 98.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 0.0 | 0.0 |
| **(combined statistics, all groups)** | | | | | | | | | | |
| Paba | 139 | 97.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 1.4 | 0.0 |
| Barind | 572 | 98.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.2 | 0.2 |
| Godagari | 224 | 98.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 | 0.0 | 0.0 |
| Tanore | 126 | 96.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 4.0 | 0.8 |
| Niamatpur | 222 | 99.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 |
| Total/Av | 711 | 98.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.3 | 0.1 |

Note: FT = Full time, M = Mainly, S = Secondary

Table V-9-6-4. Land Tenure System by Size Groups
[Owned and operated: number of farmers]

C. All areas

| Size group →<br>Tenure ↓ | pure LL | LL | SF | MF | LF | Total |
|---|---|---|---|---|---|---|
| | | | Owned land | | | |
| Owner | | | | | | |
| number | 0 | 24 | 83 | 84 | 35 | 226 |
| % | | (64.9) | (59.3) | (68.3) | (53.9) | (61.9) |
| % | | (10.6) | (36.7) | (37.2) | (15.9) | (100.) |
| Owner-Tenant | | | | | | |
| number | 0 | 13 | 51 | 38 | 27 | 129 |
| % | | (35.1) | (36.4) | (30.9) | (41.5) | (35.4) |
| % | | (10.1) | (39.5) | (29.5) | (20.9) | (100.) |
| Tenant | | | | | | |
| number | 0 | (70) | 0 | 0 | 0 | (70) |
| Pure Landless | | | | | | |
| number | (65) | 0 | 6* | 1* | 3* | 10* |
| | | | (4.3) | (0.8) | (4.6) | (2.7) |
| Total | | | | | | |
| number | (65) | 37 | 140 | 123 | 65 | 365 |
| % | (100.) | (100.) | (100.) | (100.) | (100.) | (100.) |
| % | | (10.1) | (38.4) | (33.7) | (17.8) | (100.) |
| | | | Operated land | | | |
| Owner | | | | | | |
| number | 0 | 24 | 83 | 84 | 35 | 226 |
| % | | (64.9) | (54.2) | (49.4) | (53.8) | (53.2) |
| % | | (10.6) | (36.7) | (37.2) | (15.5) | (100.) |
| Owner-Tenant | | | | | | |
| number | 0 | 0 | 33 | 66 | 30 | 129 |
| % | | (0.0) | (21.6) | (38.8) | (46.2) | (30.3) |
| % | | (0.0) | (25.6) | (51.2) | (23.2) | (100.) |
| Tenant | | | | | | |
| number | 0 | 13 | 37 | 20 | 0 | 70 |
| % | | (35.1) | (24.2) | (11.8) | (0.0) | (16.5) |
| % | | (18.6) | (52.9) | (28.5) | (0.0) | (100.) |
| Pure Landless | | | | | | |
| number | (65) | 0 | 0 | 0 | 0 | (65) |
| Total | | | | | | |
| number | (65) | 37 | 153 | 170 | 65 | 425+(75) |
| % | (100.) | (100.) | (100.) | (100.) | (100.) | (100.) |
| % | | (8.7) | (36.0) | (40.0) | (15.3) | (100.) |

* Absentee landlord (not included in the bottom part)

Table V-9-6-5. Distribution of Owned Land by Tenurial Status

(in hectares)

| | Small farm (incl.LL) | | | Medium farm | | | Large farm | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | own cult. | leased out | sub-total | own cult. | leased out | sub-total | own cult. | leased out | sub-total | own cult. | leased out | sub-total |
| | | | | | | PABA | | | | | | |
| Owner | 15.52 (100.0) | - (0.0) | 15.52 (100.0) | 37.10 (100.0) | - (0.0) | 37.10 (100.0) | 29.27 (100.0) | - (0.0) | 29.27 (100.0) | 81.89 (100.0) | - (0.0) | 81.89 (100.0) |
| Owner-Tenant | 4.91 (92.5) | 0.40 (7.5) | 5.31 (100.0) | 2.44 (100.0) | - (0.0) | 2.44 (100.0) | 11.59 (72.2) | 4.46 (27.8) | 16.05 (100.0) | 18.94 (79.6) | 4.86 (20.4) | 23.80 (100.0) |
| Tenant | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 20.43 (98.1) | 0.40 (1.9) | 20.83 (100.0) | 39.54 (100.0) | - (0.0) | 39.54 (100.0) | 40.86 (90.1) | 4.46 (9.9) | 45.32 (100.0) | 100.83 (95.4) | 4.86 (4.6) | 105.69 (100.0) |
| | | | | | | BARIND | | | | | | |
| Owner | 34.94 (100.0) | - (0.0) | 34.94 (100.0) | 113.41 (100.0) | - (0.0) | 113.41 (100.0) | 142.59 (100.0) | - (0.0) | 142.59 (100.0) | 290.94 (100.0) | - (0.0) | 290.94 (100.0) |
| Owner-Tenant | 21.62 (97.6) | 0.54 (2.4) | 22.16 (100.0) | 55.51 (81.2) | 12.82 (18.8) | 68.33 (100.0) | 104.28 (72.0) | 40.60 (28.0) | 144.88 (100.0) | 181.41 (77.1) | 53.96 (22.9) | 235.37 (100.0) |
| Tenant | - | - | - | - | - | - | - | - | - | - | - | - |
| Pure Landless | - (0.0) | 4.99 (100.0) | 4.99 (100.0) | - (0.0) | 1.62 (100.0) | 1.62 (100.0) | - (0.0) | 22.80 (100.0) | 22.80 (100.0) | - (0.0) | 29.41 (100.0) | 29.41 (100.0) |
| Total | 56.56 (91.1) | 5.53 (8.9) | 62.09 (100.0) | 168.92 (92.1) | 14.44 (7.9) | 183.36 (100.0) | 246.87 (79.6) | ~~43.40~~ 63.40 (20.4) | 310.27 (100.0) | 472.35 (85.0) | 83.37 (15.0) | 555.72 (100.0) |
| | | | | | | ALL AREAS | | | | | | |
| Owner | 50.46 (100.0) | - (0.0) | 50.46 (100.0) | 150.51 (100.0) | - (0.0) | 150.51 (100.0) | 171.86 (100.0) | - (0.0) | 171.86 (100.0) | 372.83 (100.0) | - (0.0) | 372.83 (100.0) |
| Owner-Tenant | 26.53 (96.6) | 0.94 (3.4) | 27.47 (100.0) | 57.95 (91.9) | 12.82 (8.1) | 70.77 (100.0) | 115.87 (72.0) | 45.06 (28.0) | 160.93 (100.0) | 200.35 (77.3) | 58.82 (22.7) | 259.17 (100.0) |
| Tenant | - | - | - | - | - | - | - | - | - | - | - | - |
| Pure Landless | - (0.0) | 4.99 (100.0) | 4.99 (100.0) | - (0.0) | 1.62 (100.0) | 1.62 (100.0) | - (0.0) | 22.80 (100.0) | 22.80 (100.0) | - (0.0) | 29.41 (100.0) | 29.41 (100.0) |
| Total | 76.99 (92.8) | 5.93 (7.2) | 82.92 (100.0) | 208.46 (93.5) | 14.44 (6.5) | 222.90 (100.0) | 287.73 (80.9) | 67.86 (19.1) | 355.59 (100.0) | 573.18 (86.7) | 88.23 (13.3) | 661.41 (100.0) |

Table V-9-6-6. Area Leased in, etc. (in hectares) by Size Groups

| | Landless area | per HH | Small farm area | per HH | Medium farm area | per HH | Large farm area | per HH | Total area | per HH |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | PABA | | | | | |
| Owner | - | - | - | - | - | - | - | - | - | - |
| Owner-Tenant | 3.78 (37.6) | 1.26 | 5.06 (50.3) | 0.56 | 1.21 (12.0) | 0.61 | - | - | 10.05 (100.0) | 0.72 |
| Tenant | 10.95 (100.0) | 0.52 | - | - | - | - | - | - | 10.95 (100.0) | 0.52 |
| Total | 14.73 (70.1) | 0.58 | 5.06 (24.1) | 0.56 | 1.21 (5.8) | 0.61 | - | - | 21.00 (100.0) | 0.62 |
| | | | | | BARIND | | | | | |
| Owner | - | - | - | - | - | - | - | - | - | - |
| Owner-Tenant | 8.83 (13.0) | 0.88 | 35.41 (52.0) | 0.86 | 18.14 (26.6) | 0.50 | 5.67 (8.3) | 0.24 | 68.05 (100.0) | 0.62 |
| Tenant | 43.71 (100.0) | 0.89 | - | - | - | - | - | - | 43.71 (100.0) | 0.89 |
| Total | 52.54 (47.0) | 0.89 | 35.41 (31.6) | 0.86 | 18.14 (16.2) | 0.50 | 5.67 (5.1) | 0.24 | 111.76 (100.0) | 0.66 |
| | | | | | ALL AREAS | | | | | |
| Owner | - | - | - | - | - | - | - | - | - | - |
| Owner-Tenant | 12.61 (16.1) | 0.97 | 40.47 (51.8) | 0.79 | 19.35 (24.8) | 0.51 | 5.67 (7.3) | 0.21 | 78.10 (100.0) | 0.61 |
| Tenant | 54.66 (100.0) | 0.78 | - | - | - | - | - | - | 54.66 (100.0) | 0.78 |
| Total | 67.27 (50.7) | 0.81 | 40.47 (30.5) | 0.79 | 19.35 (14.6) | 0.51 | 5.67 (4.2) | 0.21 | 132.76 (100.0) | 0.67 |

N.B. (1) Per household figures are calculated by considering the operating households only (see Table 4 for actual numbers)

(2) Here farm categories are defined on the basis of size of land owned and not the size of land operated.

Table V-9-6-7. Operated Land, Gross Land and Cropping Intensity
(area in hectares)

| | Owned cultvtd | Leased in, etc. | Leased out, etc | Ood. land | Homestead, etc | Water bodies | Total | Operated single | Operated double | Operated triple | cropped land gr. area | Cropping intensity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **LANDLESS** | | | | | | | | | | | | |
| Paba | 1.15 | 1.58 | 0.0 | 2.73 | 0.44 | 0.01 | 1.60 | 1.52 | 1.21 | – | 3.94 | 144% |
| Barind | 29.75 | 1.27 | 28.32 | 2.70 | 2.83 | 0.55 | 33.13 | 0.72 | 1.76 | 0.22 | 4.90 | 181% |
| Godagari | 0.78 | 0.47 | 0.0 | 1.25 | 0.51 | 0.13 | 1.42 | 0.0 | 1.03 | 0.22 | 2.72 | 218% |
| Tanore | 1.42 | 0.13 | 0.94 | 0.61 | 0.59 | – | 2.01 | 0.28 | 0.33 | – | 0.94 | 154% |
| Niamatpur | 27.55 | 0.67 | 27.38 | 0.84 | 1.73 | 0.42 | 29.70 | 0.44 | 0.40 | 0.0 | 1.24 | 148% |
| Total/Av | 30.90 | 2.85 | 28.32 | 5.43 | 3.27 | 0.56 | 34.73 | 2.24 | 2.97 | 0.22 | 8.84 | 163% |
| **SMALL FARMS** | | | | | | | | | | | | |
| Paba | 17.46 | 7.89 | 0.0 | 25.35 | 1.70 | 0.98 | 20.14 | 13.26 | 11.03 | 1.06 | 36.50 | 152% |
| Barind | 57.77 | 23.27 | 12.95 | 68.09 | 6.49 | 2.47 | 66.73 | 34.15 | 31.85 | 2.09 | 104.12 | 153% |
| Godagari | 33.32 | 9.85 | 12.41 | 30.76 | 2.87 | 1.75 | 37.94 | 7.18 | 21.56 | 2.02 | 56.36 | 183% |
| Tanore | 9.34 | 7.89 | – | 17.23 | 2.16 | 0.40 | 11.90 | 9.15 | 8.01 | 0.07 | 25.38 | 147% |
| Niamatpur | 15.11 | 5.53 | 0.54 | 20.10 | 1.46 | 0.32 | 16.89 | 17.82 | 2.28 | 0.0 | 22.38 | 111% |
| Total/Av | 75.23 | 31.16 | 12.95 | 93.44 | 8.19 | 3.45 | 86.87 | 47.41 | 42.88 | 3.15 | 142.62 | 153% |
| **MEDIUM FARMS** | | | | | | | | | | | | |
| Paba | 44.92 | 8.43 | 0.54 | 52.81 | 6.55 | 2.94 | 54.41 | 35.34 | 17.07 | 0.40 | 70.68 | 134% |
| Barind | 193.83 | 67.38 | 16.60 | 244.61 | 16.04 | 10.73 | 220.60 | 174.75 | 67.17 | 2.69 | 317.16 | 130% |
| Godagari | 52.82 | 26.44 | 10.12 | 69.14 | 5.16 | 3.98 | 61.96 | 29.76 | 36.82 | 2.56 | 111.08 | 161% |
| Tanore | 48.30 | 29.00 | – | 77.30 | 5.06 | 4.61 | 57.97 | 56.15 | 21.15 | – | 98.45 | 127% |
| Niamatpur | 92.71 | 11.94 | 6.48 | 98.17 | 5.82 | 2.14 | 100.67 | 88.84 | 9.20 | 0.13 | 107.63 | 110% |
| Total/Av | 238.75 | 75.81 | 17.14 | 297.42 | 22.59 | 13.67 | 275.01 | 210.09 | 84.24 | 3.09 | 387.84 | 131% |
| **LARGE FARMS** | | | | | | | | | | | | |
| Paba | 42.16 | 3.10 | 4.32 | 40.96 | 1.21 | 2.12 | 45.49 | 26.32 | 14.62 | – | 55.56 | 136% |
| Barind | 274.37 | 19.84 | 25.50 | 268.71 | 11.27 | 11.60 | 297.24 | 203.34 | 59.24 | 6.13 | 340.21 | 127% |
| Godagari | 74.86 | – | 12.41 | 62.45 | 3.91 | 3.31 | 82.08 | 26.69 | 30.30 | 5.46 | 103.67 | 166% |
| Tanore | 55.44 | 8.91 | 5.40 | 58.95 | 1.72 | 1.93 | 59.09 | 41.95 | 16.33 | 0.67 | 76.62 | 130% |
| Niamatour | 144.07 | 10.93 | 7.69 | 147.31 | 5.64 | 6.36 | 156.07 | 134.70 | 12.61 | 0.0 | 159.92 | 109% |
| Total/Av | 316.53 | 22.94 | 29.82 | 309.65 | 12.48 | 13.72 | 342.73 | 229.66 | 73.86 | 6.13 | 395.77 | 128% |
| **(combined statistics, all groups)** | | | | | | | | | | | | |
| Paba | 105.69 | 21.00 | 4.86 | 121.83 | 9.90 | 6.05 | 121.64 | 76.44 | 43.93 | 1.46 | 168.68 | 138% |
| Barind | 555.72 | 111.76 | 83.37 | 584.13 | 36.63 | 25.35 | 617.70 | 412.96 | 160.02 | 11.13 | 766.39 | 131% |
| Godagari | 161.78 | 36.76 | 34.94 | 163.60 | 12.45 | 9.17 | 183.40 | 63.63 | 89.71 | 10.26 | 273.83 | 167% |
| Tanore | 114.50 | 45.93 | 6.34 | 154.09 | 9.53 | 6.94 | 130.97 | 107.53 | 45.82 | 0.74 | 201.39 | 131% |
| Niamatpur | 279.44 | 29.07 | 42.09 | 266.42 | 14.65 | 9.24 | 303.33 | 241.80 | 24.49 | 0.13 | 291.17 | 109% |
| Total/Av | 661.41 | 132.76 | 88.23 | 705.94 | 46.53 | 31.40 | 739.34 | 489.40 | 203.95 | 12.59 | 935.07 | 132% |

Table V-9-6-8. Cost of Production per Hectare

C. Combined Statistics

| Crop | Seed | Purchased Input (cash) Fertilizr Chem | Fertilizr Indg | Hired lab. | Hired plgh | Hired water | pest. | rent | othr | sub\| tot\| | (-- (kind) hired lab. | hired othr | sub\| tot\| | grand\|total\| | seed | fam. lab. | Self plgh. | Supporting Frt. indg | othr | sub\| tot\| | by- prod | agri. prod. cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Paba: All Farms** | | | | | | | | | | | | | | | | | | | | | | |
| 1 Aus Local | - | 45 | 107 | 1003 | - | - | - | - | - | 1155 | 1019 | - | 1019 | 2174 | 488 | 1049 | 1185 | 256 | 257 | 3235 | 520 | 4889 |
| 2 Aus HYV | - | 986 | - | 1095 | - | 1258 | 120 | - | - | 3459 | 1122 | - | 1122 | 4581 | 402 | 2144 | 1471 | 596 | 459 | 5072 | 370 | 9283 |
| 3 Aman (B) | - | 394 | 41 | 926 | 237 | - | - | - | - | 1598 | 846 | - | 846 | 2444 | 711 | 2286 | 1355 | 210 | 350 | 4912 | 1480 | 5876 |
| 4 Aman (T) | - | 828 | 49 | 1009 | 388 | 1248 | - | - | - | 2922 | 979 | - | 979 | 3901 | 450 | 2597 | 1238 | 246 | 421 | 4952 | 1480 | 7373 |
| 5 Aman HYV | - | 910 | 52 | 1390 | 193 | 2061 | 207 | - | - | 4813 | 1264 | - | 1264 | 6077 | 484 | 2746 | 1215 | 262 | 539 | 5246 | 1110 | 10213 |
| 6 Boro Local | - | 841 | 83 | 1326 | 414 | 2075 | 180 | - | - | 4919 | 1255 | - | 1255 | 6174 | 448 | 1542 | 923 | 309 | 470 | 3692 | 935 | 8931 |
| 7 Boro HYV | - | 1318 | - | 1565 | - | 3546 | 254 | - | - | 6638 | 1497 | - | 1497 | 8180 | 348 | 1734 | 1868 | 436 | 628 | 5011 | 935 | 12256 |
| 8 Wheat | - | 538 | 99 | 732 | 505 | 778 | 60 | - | - | 2712 | 696 | - | 696 | 3408 | 784 | 1784 | 860 | 344 | 359 | 4131 | 1850 | 5689 |
| 9a Jute | 342 | 432 | - | 1415 | 1554 | - | - | - | - | 3743 | 1315 | - | 1315 | 5056 | - | 2042 | - | 253 | 368 | 2663 | 3240 | 4479 |
| 9b Sugarcane | - | 1145 | - | 1418 | - | 1098 | - | - | - | 3661 | 1235 | - | 1235 | 4896 | 4922 | 527 | 1372 | 330 | 602 | 7753 | 2050 | 10599 |
| 10 Potato | neg. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 11 Puls/Oilseed | 204 | - | - | 735 | 370 | - | - | - | - | 1309 | 684 | - | 684 | 1993 | 413 | 2076 | 882 | 97 | 273 | 3741 | 810 | 4924 |
| **Barind: All Farms** | | | | | | | | | | | | | | | | | | | | | | |
| 1 Aus Local | - | 45 | 19 | 1036 | 295 | - | - | - | - | 1395 | 954 | - | 954 | 2349 | 501 | 1087 | 1231 | 312 | 274 | 3405 | 520 | 5234 |
| 2 Aus HYV | - | 1077 | 03 | 968 | 10 | 1345 | 129 | - | - | 3532 | 877 | - | 877 | 4409 | 405 | 2358 | 1660 | 568 | 470 | 5461 | 370 | 9500 |
| 3 Aman (B) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4 Aman (T) | - | 421 | 05 | 1316 | 201 | 1345 | - | - | - | 3288 | 1177 | - | 1177 | 4465 | 431 | 1747 | 1554 | 489 | 434 | 4655 | 1480 | 7640 |
| 5 Aman HYV | 02 | 1303 | 23 | 981 | 67 | 2127 | 209 | - | - | 4712 | 886 | - | 886 | 5598 | 431 | 2560 | 1559 | 530 | 534 | 5614 | 1110 | 10102 |
| 6 Boro Local | - | 846 | 18 | 1299 | 132 | 2324 | 193 | - | - | 4814 | 1209 | - | 1209 | 6023 | 445 | 1439 | 1410 | 458 | 489 | 4241 | 935 | 9329 |
| 7 Boro HYV | - | 1329 | 08 | 1598 | 39 | 3766 | 239 | - | - | 6979 | 1418 | - | 1418 | 8397 | 346 | 1776 | 1895 | 464 | 644 | 5125 | 935 | 12587 |
| 8 Wheat | - | 578 | 10 | 658 | 143 | 745 | 75 | - | - | 2209 | 582 | - | 582 | 2791 | 819 | 2212 | 1297 | 430 | 377 | 5135 | 1850 | 6076 |
| 9a Jute | 342 | 451 | - | 1348 | - | - | - | - | - | 2141 | 1136 | - | 1136 | 3277 | - | 1593 | 1665 | 242 | 339 | 3839 | 3240 | 3876 |
| 9b Sugarcane | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 10 Potato | - | 1764 | - | 2294 | - | 840 | 30 | - | - | 4928 | 2196 | - | 2196 | 7124 | 7598 | 1772 | 1530 | 517 | 927 | 12344 | - | 19468 |
| 11 Puls/Oilseed | - | 258 | - | 612 | - | - | - | - | - | 870 | 507 | - | 507 | 1377 | 530 | 1749 | 1350 | 110 | 256 | 3993 | 810 | 4560 |
| **All areas: All Farms** | | | | | | | | | | | | | | | | | | | | | | |
| 1 Aus Local | - | 45 | 34 | 1030 | 244 | - | - | - | - | 1354 | 965 | - | 965 | 2319 | 499 | 1080 | 1223 | 302 | 271 | 3376 | 520 | 5175 |
| 2 Aus HYV | - | 1072 | 03 | 975 | 09 | 1340 | 129 | - | - | 3528 | 890 | - | 890 | 4418 | 405 | 2347 | 1650 | 570 | 469 | 5540 | 370 | 9488 |
| 3 Aman (B) | - | 394 | 41 | 926 | 237 | - | - | - | - | 1598 | 846 | - | 846 | 2444 | 711 | 2286 | 1355 | 210 | 350 | 4912 | 1480 | 5876 |
| 4 Aman (T) | - | 413 | 07 | 1303 | 209 | 1341 | - | - | - | 3273 | 1169 | - | 1169 | 4442 | 432 | 1782 | 1541 | 479 | 433 | 4667 | 1480 | 7629 |
| 5 Aman HYV | 02 | 1259 | 26 | 1027 | 81 | 2120 | 209 | - | - | 4723 | 928 | - | 928 | 5651 | 437 | 2581 | 1521 | 500 | 535 | 5573 | 1110 | 10114 |
| 6 Boro Local | - | 843 | 63 | 1317 | 326 | 2152 | 184 | - | - | 4886 | 1241 | - | 1241 | 6127 | 447 | 1510 | 1074 | 355 | 476 | 3862 | 935 | 9055 |
| 7 Boro HYV | - | 1329 | 08 | 1597 | 39 | 3763 | 239 | - | - | 6974 | 1419 | - | 1419 | 8394 | 346 | 1775 | 1895 | 464 | 644 | 5123 | 935 | 12582 |
| 8 Wheat | - | 573 | 09 | 667 | 186 | 749 | 73 | - | - | 2269 | 596 | - | 596 | 2865 | 815 | 2161 | 1249 | 420 | 375 | 5015 | 1850 | 6030 |
| 9a Jute | 342 | 446 | - | 1367 | 430 | - | - | - | - | 2584 | 1185 | - | 1185 | 3769 | - | 1717 | 1204 | 245 | 347 | 3513 | 3240 | 4042 |
| 9b Sugarcane | - | 1145 | - | 1418 | - | 1098 | - | - | - | 3661 | 1235 | - | 1235 | 4896 | 4922 | 527 | 1372 | 330 | 602 | 7753 | 2050 | 10599 |
| 10 Potato | - | 1764 | - | 2294 | - | 840 | 30 | - | - | 4928 | 2196 | - | 2196 | 7124 | 7598 | 1772 | 1530 | 517 | 927 | 12344 | - | 19468 |
| 11 Puls/Oilseed | 173 | 40 | 731 | 313 | - | - | - | - | - | 1242 | 657 | - | 657 | 1898 | 431 | 2026 | 954 | 99 | 270 | 3780 | 810 | 4868 |

Table V-9-6-9.

Production and Distribution of Various Crops by Farm Size and Upazila
(in metric tons

C. Combined Statistics (All Farms)

| | Crop | Total area (ha.) | Total prod. | Yield per ha. | Distribution: Home cons. | Seed | Rent | Sold |
|---|---|---|---|---|---|---|---|---|
| | | | | | PABA | | | |
| 1. | Aus Local | 19.29 | 34.59 | 1.79 | 16.47 | 1.16 | 2.90 | 14.06 |
| 2. | Aus HYV | 1.48 | 7.40 | 4.99 | 2.08 | 0.07 | 0.26 | 4.99 |
| 3. | Aman (B) | 66.76 | 112.74 | 1.69 | 71.77 | 5.27 | 9.55 | 26.15 |
| 4. | Aman (T) | 19.09 | 38.62 | 2.02 | 16.01 | 0.96 | 3.40 | 18.35 |
| 5. | Aman HYV | 14.50 | 36.70 | 2.53 | 8.95 | 0.79 | 2.02 | 24.94 |
| 6. | Boro Local | 16.21 | 46.43 | 2.86 | 19.40 | 0.89 | 4.96 | 21.18 |
| 7. | Boro HYV | 0.53 | 1.21 | 2.28 | 0.32 | 0.02 | - | 0.87 |
| 8. | Wheat | 5.27 | 8.58 | 1.63 | 2.27 | 0.51 | 0.62 | 5.18 |
| 9. | Sub-Total | 143.13 | 286.27 | - | 137.27 | 9.67 | 23.71 | 115.62 |
| 10a | Jute | 0.13 | 0.25 | 1.94 | - | 0.0 | - | 0.25 |
| 10b | Sugarcane | 1.61 | 114.51 | 71.13 | - | 7.41 | 7.39 | 99.71 |
| 11. | Potato | 0.01 | 0.08 | 7.94 | 0.04 | - | 0.04 | 7.55 |
| 12. | Pulses | 23.86 | 18.96 | 0.79 | 6.00 | 0.58 | 2.33 | 12.05 |
| | | | | | BARIND | | | |
| 1. | Aus Local | 92.60 | 131.30 | 1.42 | 56.25 | 6.46 | 14.15 | 54.44 |
| 2. | Aus HYV | 26.13 | 70.16 | 2.69 | 26.44 | 1.33 | 8.66 | 33.73 |
| 3. | Aman (B) | - | - | - | - | - | - | - |
| 4. | Aman (T) | 440.24 | 984.48 | 2.24 | 355.09 | 12.28 | 92.72 | 524.39 |
| 5. | Aman HYV | 115.74 | 424.51 | 3.67 | 82.26 | 5.76 | 27.63 | 308.86 |
| 6. | Boro Local | 7.30 | 23.32 | 3.19 | 12.28 | 0.41 | 2.11 | 8.52 |
| 7. | Boro HYV | 37.16 | 147.03 | 3.96 | 16.20 | 1.71 | 6.71 | 122.41 |
| 8. | Wheat | 38.86 | 55.90 | 1.44 | 12.12 | 4.00 | 6.03 | 32.75 |
| 9. | Sub-Total | 758.03 | 1836.70 | - | 560.64 | 31.95 | 158.01 | 1086.10 |
| 10a | Jute | 0.34 | 0.38 | 1.11 | 0.0 | neg. | 0.0 | 0.33 |
| 10b | Sugarcane | - | - | - | - | - | - | - |
| 11. | Potato | 3.70 | 26.72 | 7.22 | 5.01 | 3.35 | 2.47 | 15.89 |
| 12. | Pulses | 4.32 | 5.77 | 1.34 | 1.29 | 0.12 | 0.31 | 4.05 |
| | | | | | ALL AREAS | | | |
| 1. | Aus Local | 111.89 | 165.89 | 1.48 | 72.72 | 7.62 | 17.05 | 68.50 |
| 2. | Aus HYV | 27.61 | 77.56 | 2.81 | 28.52 | 1.40 | 8.92 | 38.74 |
| 3. | Aman (B) | 66.76 | 112.74 | 1.69 | 71.77 | 5.27 | 9.55 | 26.15 |
| 4. | Aman (T) | 459.33 | 1023.10 | 2.23 | 371.10 | 13.24 | 96.12 | 542.64 |
| 5. | Aman HYV | 130.24 | 461.21 | 3.54 | 91.21 | 6.55 | 29.65 | 333.80 |
| 6. | Boro Local | 23.51 | 69.75 | 2.97 | 31.68 | 1.30 | 7.07 | 29.70 |
| 7. | Boro HYV | 37.69 | 148.24 | 3.93 | 16.52 | 1.73 | 6.71 | 122.28 |
| 8. | Wheat | 44.13 | 64.48 | 1.46 | 14.39 | 4.51 | 6.65 | 38.33 |
| 9. | Sub-Total | 901.16 | 2122.97 | - | 597.91 | 41.62 | 181.72 | 1301.72 |
| 10a | Jute | 0.47 | 0.63 | 1.34 | 0.0 | neg. | 0.0 | 0.33 |
| 10b | Sugarcane | 1.61 | 114.51 | 71.13 | 0.0 | 7.41 | 7.39 | 99.71 |
| 11. | Potato | 3.71 | 26.80 | 7.22 | 5.05 | 3.35 | 2.51 | 15.89 |
| 12. | Pulses | 28.12 | 24.73 | 0.88 | 7.29 | 0.70 | 2.64 | 14.13 |

Table V-9-6-10. Agricultural (Crops) Net Income and Disposable Income Per Household

| Size Class | Gross Return (1) | Optd Cost (2) | Net Return 1-2=(3) | (Leased Land) Received (4)/1 | (Leased Land) Paid (5)/2 | Net Agrl. Income 3-5= (6) | Non-agrl. income Gross Receipt (7) | Non-agrl. income Income 7+4=(8) | Farm HH Income 6+8=(9) | Gift,etc. Income 10) | Gross Farm HH Income 9+10=(11) | Repay. of Debt (12) | Taxes etc. (13) | Disp. Income 11-12-13= (14) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PABA | 18291 | 11053 | 7238 | 314 | 1356 | 5882 | 14722 | 15036 | 20918 | 130 | 21048 | 244 | 471 | 20333 |
| LL | 2554 | 1457 | 1097 | 0 | 537 | 560 | 7212 | 7212 | 7772 | 31 | 7803 | 57 | 12 | 7734 |
| SF | 9175 | 5774 | 3401 | 0 | 1185 | 2216 | 11284 | 11284 | 13500 | 133 | 13633 | 157 | 155 | 13321 |
| MF | 25936 | 15510 | 10426 | 120 | 1878 | 8548 | 16689 | 16809 | 25357 | 145 | 25502 | 298 | 584 | 24620 |
| LF | 70436 | 42500 | 27936 | 3101 | 2225 | 25711 | 40666 | 43767 | 69478 | 279 | 69748 | 905 | 2589 | 66251 |
| BARIND | 25328 | 15326 | 10002 | 1010 | 1950 | 8052 | 14825 | 15835 | 23887 | 386 | 24273 | 377 | 612 | 23284 |
| LL | 639 | 419 | 220 | 0/3 | 95 | 125 | 7679 | 7679 | 7804 | 89 | 7804 | 23 | 12 | 7769 |
| SF | 12654 | 7699 | 4955 | 822 | 1477 | 3478 | 8077 | 9499 | 12977 | 172 | 13149 | 208 | 155 | 12780 |
| MF | 29112 | 17575 | 11537 | 822 | 3336 | 8201 | 10450 | 11156 | 19357 | 721 | 20078 | 318 | 584 | 19176 |
| LF | 81979 | 49945 | 32034 | 3178 | 2473 | 29561 | 51002 | 54180 | 83741 | 464 | 84205 | 1009 | 2589 | 80607 |
| TOTAL | 23921 | 14471 | 9450 | 879 | 1831 | 7619 | 14804 | 15683 | 23302 | 335 | 23637 | 351 | 484 | 22702 |
| LL | 964 | 595 | 369 | 0 | 170 | 199 | 7600 | 7600 | 7799 | 79 | 7878 | 29 | 12 | 7837 |
| SF | 11679 | 7065 | 4614 | 592 | 1395 | 3219 | 8972 | 9564 | 12783 | 161 | 12944 | 194 | 155 | 12595 |
| MF | 28572 | 17325 | 11243 | 706 | 3105 | 8142 | 11521 | 12227 | 20369 | 622 | 20991 | 315 | 584 | 20092 |
| LF | 80381 | 48914 | 31467 | 3167 | 2439 | 29028 | 49571 | 52738 | 81766 | 438 | 82204 | 995 | 2589 | 7862 |

/1... to Non-agrl. income. /2.. to Agrl. gross returns and production cost but included already into Agrl. gross returns.
/3.. except absentee landlord.

Table V-9-6-10 (continued)

| Size Class | Food (Rice + Wheat) Bought | Family Used | Others | Sub-total | Housing | Clothing | Education | Fuel | Medical | Others | Grand Total | Disp. Income | Farm HH Economic Surplus |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PABA | 2151 | 7889 | 1148 | 11188 | 1589 | 1536 | 254 | 1501 | 96 | 2199 | 18363 | 20333 | 1970 |
| LL | 3950 | 1588 | 377 | 5915 | 315 | 473 | 30 | 551 | 35 | 567 | 7887 | 7734 | 153 |
| SF | 3258 | 4623 | 777 | 48658 | 1117 | 977 | 215 | 1117 | 50 | 1131 | 12922 | 13321 | 399 |
| MF | 0 | 12178 | 1702 | 13880 | 2082 | 1851 | 231 | 2082 | 110 | 2897 | 23133 | 24620 | 1487 |
| LF | 0 | 22976 | 2737 | 25713 | 4945 | 5439 | 989 | 3461 | 402 | 8499 | 49448 | 66254 | 16806 |
| BARIND | 1400 | 6921 | 1429 | 9749 | 1353 | 1339 | 173 | 1280 | 134 | 1949 | 15976 | 23284 | 7308 |
| LL | 5182 | 504 | 603 | 6289 | 335 | 503 | 15 | 587 | 35 | 621 | 8385 | 7769 | -616 |
| SF | 657 | 6185 | 851 | 7693 | 919 | 804 | 62 | 918 | 100 | 986 | 11482 | 12786 | 1304 |
| MF | 40 | 9174 | 1838 | 11052 | 1658 | 1474 | 184 | 1658 | 150 | 2244 | 18420 | 19176 | 756 |
| LF | 0 | 13349 | 2904 | 16253 | 3126 | 3438 | 625 | 2188 | 326 | 5300 | 31256 | 80607 | 49351 |
| TOTAL | 1550 | 7115 | 1373 | 10037 | 1400 | 1378 | 189 | 1324 | 126 | 1999 | 16424 | 22702 | 6278 |
| LL | 4973 | 688 | 565 | 6226 | 332 | 583 | 18 | 581 | 35 | 612 | 8301 | 7837 | -464 |
| SF | 1388 | 5746 | 830 | 7964 | 975 | 853 | 105 | 974 | 86 | 1027 | 11887 | 12595 | 708 |
| MF | 33 | 9686 | 1815 | 11534 | 1730 | 1538 | 192 | 1730 | 143 | 2355 | 19224 | 20092 | 868 |
| LF | 0 | 14682 | 2881 | 17563 | 3378 | 3715 | 675 | 2364 | 337 | 5743 | 33775 | 78620 | 44845 |

Table V-9-6-11. Farm Household Gross Returns
(annually, in Taka per Household)

Agriculture Gross Return (cash return from sale of produce)

| Farmers Size group | No. | L. Aus | HYV Aus | sub-totl | B. Aman | T. Aman | HYV Aman | sub-totl | L. Boro | HYV Boro | sub-totl | Wheat | Jute | S'cane | Potato | Othrs | Total | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PABA | 100 | 723 | 253 | 976 | 1466 | 1023 | 1365 | 3854 | 997 | 43 | 1040 | 260 | 6 | 639 | 0 | 410 | 1315 | 7185 |
| Landless | 19 | - | - | - | 0 | 35 | 3 | 38 | - | - | 0 | 0 | 32 | 0 | 0 | 0 | 32 | 70 |
| Small farm | 43 | 123 | - | 123 | 403 | 313 | 495 | 1211 | 425 | - | 425 | 113 | 0 | 0 | 0 | 261 | 374 | 2133 |
| Medium farm | 29 | 1079 | - | 1079 | 8515 | 1311 | 1132 | 4958 | 1233 | - | 1233 | 205 | 0 | 1592 | 0 | 739 | 2536 | 9796 |
| Large farm | 9 | 3974 | 2813 | 6787 | 6261 | 5575 | 9146 | 20983 | 5073 | 475 | 5548 | 1691 | 0 | 1970 | 0 | 961 | 3617 | 37940 |
| BARIND | 400 | 672 | 416 | 1088 | 0 | 7351 | 4169 | 11521 | 132 | 1454 | 1586 | 435 | 5 | 0 | 177 | 109 | 726 | 14920 |
| Landless | 93 | 1 | 0 | 1 | 0 | 6 | 23 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 |
| Small farm | 110 | 231 | 318 | 549 | 0 | 410 | 1968 | 2378 | 28 | 285 | 313 | 177 | 0 | 0 | 17 | 0 | 194 | 3434 |
| Medium farm | 141 | 837 | 559 | 1396 | 0 | 8466 | 3885 | 12351 | 165 | 781 | 946 | 665 | 0 | 0 | 302 | 211 | 1178 | 14071 |
| Large farm | 56 | 3847 | 943 | 3190 | 0 | 37413 | 16130 | 53543 | 475 | 7859 | 8334 | 1095 | 36 | 0 | 478 | 250 | 1859 | 52926 |
| TOTAL | 500 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 13373 |
| Landless | 112 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 37 |
| Small farm | 153 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3048 |
| Medium farm | 170 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 14826 |
| Large farm | 65 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 66913 |

| | Returns in kind (from operated land) | | | | | Non-agricultural returns | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Cash | | | Others | | |
| | Use of paddy and wheat produce | | | | | farm | off-farm | sub- | | Total | GRAND |
| | Seed | Cons. | Rent | Others | Total | occn. | occn. | total | Gifts | | TOTAL |
| PABA | 601 | 6215 | 1356 | 2934 | 18291 | 5227 | 9495 | 14722 | 130 | 14852 | 33143 |
| Landless | 68 | 1250 | 537 | 629 | 2554 | 721 | 6491 | 7212 | 31 | 7243 | 9797 |
| Small farm | 316 | 3638 | 1185 | 1903 | 9175 | 7899 | 3385 | 11284 | 133 | 11417 | 30592 |
| Medium farm | 1165 | 9642 | 1878 | 3455 | 25936 | 5841 | 10848 | 16689 | 145 | 16834 | 42770 |
| Large farm | 1267 | 17955 | 2225 | 11039 | 70436 | 0 | 40666 | 40666 | 279 | 40945 | 111381 |
| BARIND | 527 | 6625 | 1950 | 1306 | 25328 | 2448 | 12377 | 14825 | 386 | 15211 | 40539 |
| Landless | 56 | 425 | 95 | 33 | 609 | 4838 | 2841 | 7679 | 89 | 7768 | 8407 |
| Small farm | 320 | 5200 | 1477 | 2223 | 12654 | 3715 | 4362 | 8077 | 172 | 8249 | 20903 |
| Medium farm | 803 | 9178 | 3336 | 1724 | 30902 | 836 | 9614 | 10450 | 721 | 11171 | 42073 |
| Large farm | 1030 | 13295 | 2473 | 671 | 86134 | 0 | 51002 | 51002 | 464 | 51466 | 135861 |
| TOTAL | 573 | 6543 | 1831 | 1611 | 23921 | 3103 | 11700 | 14804 | 335 | 15139 | 39060 |
| Landless | 58 | 565 | 170 | 134 | 964 | 4139 | 461 | 7600 | 79 | 7679 | 8643 |
| Small farm | 319 | 4761 | 1395 | 2136 | 11679 | 4883 | 4089 | 8972 | 161 | 9133 | 20812 |
| Medium farm | 865 | 9257 | 3105 | 2003 | 30055 | 1695 | 9826 | 11521 | 622 | 12143 | 42042 |
| Large farm | 1063 | 13942 | 2439 | 3106 | 83960 | 0 | 49571 | 49571 | 438 | 50009 | 133471 |

Table V-9-6-12. Crop Damage (in percentage)

| Upazila | 1984-85 | | | | | 1985-86 | | | | | 1986-87 | | | | | Average | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Exp | Fld | Drgt | Othr | Total | Exp | Fld | Drgt | Othr | Total | Exp | Fld | Drgt | Othr | Total | Exp | Fld | Drgt | Othr | Total |
| PABA | | | | | | | | | | | | | | | | | | | | |
| Landless | 100 | 12.0 | 6.0 | 4.0 | 22.0 | 100 | 22.0 | - | 7.0 | 29.0 | 100 | - | - | - | - | 100 | 11.3 | 2.0 | 3.7 | 17.0 |
| Small farm | 100 | 25.0 | 4.0 | 5.0 | 34.0 | 100 | 36.0 | - | 3.0 | 39.0 | 100 | - | - | - | - | 100 | 20.3 | 1.3 | 2.7 | 24.3 |
| Medium farm | 100 | 20.0 | 4.0 | 8.0 | 32.0 | 100 | 30.0 | - | 4.0 | 34.0 | 100 | - | - | - | - | 100 | 16.7 | 1.3 | 4.0 | 22.0 |
| Large farm | 100 | 28.0 | 5.0 | 8.0 | 41.0 | 100 | 35.0 | - | 3.0 | 38.0 | 100 | - | - | - | - | 100 | 21.0 | 1.7 | 3.7 | 26.3 |
| Average | 100 | 21.2 | 4.7 | 6.2 | 32.2 | 100 | 30.7 | - | 4.2 | 35.0 | 100 | - | - | - | - | 100 | 17.3 | 1.6 | 3.5 | 22.4 |
| BARIND | | | | | | | | | | | | | | | | | | | | |
| Landless | 100 | - | 15.0 | - | 15.0 | 100 | - | 13.0 | 2.0 | 15.0 | 100 | 9.0 | 16.0 | - | 25.0 | 100 | 3.0 | 14.7 | 0.7 | 18.4 |
| Small farm | 100 | - | 20.0 | 2.0 | 22.0 | 100 | - | 24.0 | 4.0 | 28.0 | 100 | 11.0 | 25.0 | 4.0 | 40.0 | 100 | 3.7 | 23.0 | 3.3 | 30.0 |
| Medium farm | 100 | - | 25.0 | 2.0 | 27.0 | 100 | - | 22.0 | 3.0 | 25.0 | 100 | 10.0 | 30.0 | 3.0 | 43.0 | 100 | 3.3 | 25.7 | 2.7 | 31.7 |
| Large farm | 100 | - | 26.0 | 4.0 | 30.0 | 100 | - | 27.0 | 4.0 | 31.0 | 100 | 12.0 | 29.0 | 4.0 | 45.0 | 100 | 4.0 | 27.3 | 4.0 | 35.3 |
| Average | 100 | - | 21.5 | 2.0 | 23.5 | 100 | - | 21.5 | 3.2 | 24.7 | 100 | 10.5 | 25.0 | 2.7 | 38.2 | 100 | 3.5 | 22.7 | 2.6 | 28.8 |
| (All) Average | 100 | 10.6 | 13.1 | 4.1 | 27.8 | 100 | 15.3 | 10.7 | 3.7 | 29.8 | 100 | 5.2 | 12.5 | 1.3 | 19.1 | 100 | 10.4 | 12.1 | 3.0 | 25.5 |

N.B. Exp = Expected, Fld = Flood, Drgt = Drought

Table V-9-6-13. Costs and Net Returns of Some Selected Irrigation Schemes

| | Year estd. | Engine model | Irrigated area Local | Irrigated area HYV | Farmers served | Water charge/ha Local | Water charge/ha HYV | Gross income | Cost of operation (Taka) O + M | Cost of operation (Taka) salaries | Cost of operation (Taka) Total | Net income |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PABA | | | | | | | | | | | | |
| 1. Beel Nepal Para STW (Abdul Wahab) | 1980 | Usha 650 | 8.77 | - | 26 | 1985 | - | 17408 | 13020 | self | 13020 | 4388 |
| 2. Beel Nepal Para STW (Mohsin) | 1983 | Usha 500 | 0.27 | 2.98 | 10 | 2061 | 3666 | 11481 | 7825 | Self | 7825 | 3656 |
| GODAGARI | | | | | | | | | | | | |
| 3. Paramanandapur DTW (Majibur Rahman) | 1986 | Yanmar | 24.55 | - | 47 | 2125 | - | 52169 | 30447 | 3600(1) | 34047 | 18122 |
| 4. Ghanashyampur DTW (Abdul Khaleque) | 1983 | Lister | 40.46 | - | 35 | 1895 | - | 76671 | 42450 | 5000(1) | 47450 | 29221 |
| TANORE | | | | | | | | | | | | |
| 5. Sharanjai STW (Ashraf Ali) | 1984 | Yanmar 105 | - | 4.59 | 2 | - | 3435 | 15308 | 10189 | 1500(1) | 11689 | 3619 |
| 6. Sharanjai STW (Omar Ali†) | 1984 | Kubota 600N | 0.54 | 4.86 | 2 | 1853 | 2985 | 15508 | 9590 | 3600(1) | 13190 | 2318 |
| NIAMATPUR | | | | | | | | | | | | |
| 7. Kumirjal STW (Saimuddin) | 1984 | Yanmar 105 | 2.83 | 1.68 | 7 | 1112 | 3706 | 9151 | 6310 | Self | 6310 | 2841 |
| 8. Kumirjal STW (Ohiruddin) | 1984 | Yanmar 105 | - | 3.50 | 13 | - | 3710 | 12985 | 6080 | 5100(2) | 10180 | 1805 |

| | AVERAGE COST per ha. | | AVERAGE COST per farmer | |
|---|---|---|---|---|
| | water charge | O+M cost | water charge | O+M cost |
| Paba | 2403 | 1734 | 1115 | 802 |
| Barind | 2192 | 1481 | 2192 | 1159 |
| Average | 2219 | 1513 | 1482 | 1012 |

N.B. All irrigation schemes did not fall within our study area. Within brackets are shown the name of the scheme managers.

Table V-9-6-14 The North Rajshahi Irrigation Project - Farm Economic Survey Questionnaire, (JICA, Bangladesh Water Development Board, Economics Department, Rajshahi University)

Number One

Code No. _____

(For Farmers only)

1. Identification of the Respondent

a) Name _____

b) Village _____ c) Union _____ d) Upazila _____

2. Family Characteristics

| Serial No. | Name | Age | Sex | Education | *Occupation** |
|---|---|---|---|---|---|
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 8. | | | | | |
| 9. | | | | | |
| 10. | | | | | |
| 11. | | | | | |
| 12. | | | | | |

* = Primary/Inter./Higher Secondary/Degree/Higher/Others (Specify)

** = Minors/Student/Housework/Labour/Service/Agric/Business/Teaching/ Others (Specify)

3. Land ownership pattern (Own family land only)

a) Cultivated land _____

b) Water bodies _____

c) Homestead, garden, bamboos, etc. _____

4. Land tenure system (Previous prod year)

| | One Crop. | Double Crop. | Triple Crop. | Total |
|---|---|---|---|---|
| a) Own land own cultivation | | | | |
| b) Leased in/etc. | | | | |
| c) Leased out/etc. | | | | |

* Land under sugarcane should be clearly specified.

N.B.: Operated land = Own land own cultivation + leased in/etc.

Total owned land = Own land own cultivation + land leased out/etc.

5. Crop Production (last production year: Aman to Aus season)

PER BIGHA

| Crops | Operated Land | Yield | Farm Price | Seeds Qty. | Seeds Value | Plough No. | Labour Family | Labour Hired | Labour Wage | Irri. Tk. | Chemicals Qty. | Chemicals Value | Fertilizers Indige Value | Fertilizers Insec. Tk. | Interest Tk | Others Tk | Total Tk |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 1. Aus Local | | | | | | | | | | | | | | | | | | | |
| 2. Aus HYV | | | | | | | | | | | | | | | | | | | |
| 3. Aman B | | | | | | | | | | | | | | | | | | | |
| 4. T. Aman Local | | | | | | | | | | | | | | | | | | | |
| 5. T. Aman HYV | | | | | | | | | | | | | | | | | | | |
| 6. Boro Local | | | | | | | | | | | | | | | | | | | |
| 7. Boro HYV | | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | | | | | | | | | | | | | |
| 8. Wheat | | | | | | | | | | | | | | | | | | | |
| 9. Jute | | | | | | | | | | | | | | | | | | | |
| 10. Sugarcane | | | | | | | | | | | | | | | | | | | |
| 11. Potato | | | | | | | | | | | | | | | | | | | |
| Total Operated Land | | | | | | | | | | | | | | | | | | | |

6. Yearly Cash Income (last production year)

| Sources | Cash Sale | | Family Use | | Total |
|---|---|---|---|---|---|
| | Quantity | Value | Seeds (Qty.) | Consumed | (Taka) |
| a) Farm Agriculture | | | | | |
| 1. Aus local | | | | | |
| 2. Aus HYV | | | | | |
| 3. Aman B | | | | | |
| 4. T Aman Local | | | | | |
| 5. T Aman HYV | | | | | |
| 6. Boro local | | | | | |
| 7. Boro HYV | | | | | |
| 8. Wheat | | | | | |
| 9. Jute | | | | | |
| 10. Sugarcane | | | | | |
| 11. Potato | | | | | |
| 12. Others (specify) | | | | | |
| Sub-total | | | | | |
| b) Non-agricultural (last year) | | | | | |
| 1. Labour | | | | | |
| 2. Service | | | | | |
| 3. Business | | | | | |
| 4. Others (Specify) | | | | | |
| c) Rent/other forms | | | | | |
| d) Gift/etc. | | | | | |
| e) Others (specify) | | | | | |
| Sub-total | | | | | |
| Grand Total | | | | | |

7. Loan

| Sources | Amount Last Yr. | Amount Prev. Yr. | R/interest | Paid Loan Last Yr. | Paid Loan Prev. Yr. | Outstanding Amount |
|---|---|---|---|---|---|---|
| a) Institutional | | | | | | |
| 1. BKB (Rajshahi Krishi Unnayan Bank) | | | | | | |
| 2. Upazil Cooperative Agencies | | | | | | |
| 3. National Commercial Banks | | | | | | |
| 4. Others (Specify) | | | | | | |
| b) Non-institutional | | | | | | |
| 1. Village money lenders | | | | | | |
| 2. Friends & Relatives | | | | | | |
| 3. Others (Specify) | | | | | | |
| Total | | | | | | |

8. Crop Damages (Previous 3 years)

| Name of Crops | 1984-85 Expected | 1984-85 Loss | 1985-86 Expected | 1985-86 Loss | 1986-87 Expected | 1986-87 Loss | Total Expected | Total Loss |
|---|---|---|---|---|---|---|---|---|
| 1. | | | | | | | | |
| 2. | | | | | | | | |
| 3. | | | | | | | | |
| 4. | | | | | | | | |
| Total | | | | | | | | |

9. Reasons for Loss

| Source | 1984-85 | 1985-86 | 1986-87 |
|---|---|---|---|
| a) Natural Flood | | | |
| b) Man-Made | | | |

10. Household Expenditure

a) Consumption

1. Food (weekly)
2. Housing (yearly)
3. Clothings (yearly)
4. Education (yearly)
5. Fuel (yearly)
6. Medical (yearly)
7. Others (specify)

Sub-total

b) Investment

1. Land purchase/land taken in other forms
2. Agricultural implements purchase
3. Land development
4. Others (specify)

Sub-total

TOTAL

11. Irrigation Activities (last production year)

| Name of Crops | Operated Land under Irrigation | | |
|---|---|---|---|
| | Traditional | Modern | Total |
| 1. Aus | | | |
| 2. Aman | | | |
| 3. Boro | | | |
| 4. Wheat | | | |
| 5. Sugarcane | | | |
| 6. Others | | | |
| Total | | | |

12. Cash Production Expenses (last production year)

| Nature | Seeds | Fert. | Insect. | Irrig. | Plough | Labor | Agl. imnl. | Rent | Inter. | Others (spec) |
|---|---|---|---|---|---|---|---|---|---|---|
| Bought | | | | | | | | | | |
| House supplied | | | | | | | | | | |
| Total | | | | | | | | | | |

13. Livestock

| Serial No. | Age(Teeth) | Activity | Comments on their quality, etc. |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |

Problems: i) Have adequate no. of bullocks? Yes/No

ii) Is the quality of the bullock power satisfactory? Yes/No

Comments and suggestions about the animal power in the locality.

14. Agricultural Support Facilities

i) Help & coop received from govt. agencies

1. BADC _____

_____

2. BRDB _____

_____

3. BKB _____

_____

4. Others (specify) _____

_____

ii) Help & coop received from NGO

1. Coop. _____
2. Foreign donor agencies _____
3. Others (specify) _____

_____

15. Comments and Suggestions

Date of Interview:

Field Investigator's Comments

_____

Investigator's Signature

Number Two

(For Irrigation Scheme Managers/Owners only) Code No.:

1. Identification of the Respondent
   a) Name
   b) Village (c) Union (d) Upazila

2. a) Name of the Irrigation Scheme
   b) Year of establishment

3. a) Model of Engine (b) Specifications

4. Year wise irrigated land crops and costs of operation: For the last five years

| Year | Crop. | Irrig. Land | Farmers | Water Charge | Operation & Maint. Cost | Salary for Employ. |
|---|---|---|---|---|---|---|
| 1986-87 | 1. | | | | | |
| | 2. | | | | | |
| | 3. | | | | | |
| 1985-86 | 1. | | | | | |
| | 2. | | | | | |
| | 3. | | | | | |
| 1984-85 | 1. | | | | | |
| | 2. | | | | | |
| | 3. | | | | | |
| 1983-84 | 1. | | | | | |
| | 2. | | | | | |
| | 3. | | | | | |
| 1982-83 | 1. | | | | | |
| | 2. | | | | | |
| | 3. | | | | | |

| Year | Crop. | Irrig. Land | Farmers | Water Charge | Operation & Maint. Cost | Salary for Employ. |
|---|---|---|---|---|---|---|
| | | | | | | |
| 1981-82 | 1. | | | | | |
| | 2. | | | | | |
| | 3. | | | | | |

5. Problems
   a) Mechanical _____
   b) Economic _____
   c) Social _____
   d) Political _____

6. Irrigation Potentialities
   a) Number of schemes
   b) Command area under the existing schemes
   c) Irrigation charges
   d) Irrigation crops

7. Overall comments and suggestions about irrigation activities

Date: Field Investigator's Signature

## 10. Farmers' Organization

As mentioned above in interim report, UCCA-KSS/BSS/MBSS system has been playing an important role to carry out economic activities such as crop production, marketing and distribution of agricultural outputs and inputs, establishment of irrigation equipment, and various types of off-farm activities including rice husking, fisheries, bamboo and cane works, handloams, silk and jute craft, and supplying and distributing the funds for the above economic activities. Moreover, in the areas under BRDB Project or Programme, the existing UCCA-KSS/BSS system would form Irrigation Management Committee among themselves to control and distribute irrigated water rationally and would serve as collecting organization of water rates which may be specified in the notification regarding publicity.

The objectives of this Project are to push up living standard of people of poor class and to scheme activation and stabilization of socio-economic viability in rural communities, through increasing agricultural production, income of farmers and landless farmers and opportunities of employment according to supply of irrigation water.

It seems desirable for this Project to organize UCCA-KSS/BSS/MBSS system which can implement the economic activities in an integrated manner covering the whole of output, input and credit of agricultural production and socio-economic viability in rural communities, as a saucer of farmers' side to this Project.

The Third Five-Year Plan also emphasized organization of farmers and landless farmers as one of important policies, succeeding to the Second Five-Year Plan.

Accordingly, it is recommended to promote more organization of UCCA-KSS/BSS system in irrigated area of this Project under cooperation of BRDB, substantially.

## 11. Proposed Supporting Services

The agricultural development policy of the Government aims to decrease the population in household with income below the poverty line in rural area and establish food self-sufficiency of the country through increasing the agricultural production especially foodgrain and enlarging employment opportunities in rural area.

Many of the agricultural development programs have not realized expected targets because agricultural development requires integrated components and simultaneously intensive, strong and continuous instruction and operation. For example, after construction of project facilities, production increase cannot be maintained without supply of fertilizer, agro-chemicals and so on. Along with supply of agricultural and marketing of agricultural outputs, an agricultural extension service system is indispensable as distribution system of seeds and fertilizer, credit system, post-harvest facilities and advantageous marketing system for increase and stabilization of agricultural production and improvement in farmers' living standards.

### 11-1. Agricultural Research Work

Although farmers in the Project area are accustomed to paddy cultivation, the projected shift from rained paddy cultivation to irrigated paddy cultivation and introduction of irrigated vegetable cultivation will entail some major adjustments for the farmers concerned in terms of working habits and management practices, especially in the Barind area which occupies most of the Project area. But the on-the-spot examination that is, test of adaptability of rice varieties in a farmer's field, is only conducted in this area. Though there are regional station and sub-station of BRRI in the Rajshahi, the main research item of these stations is also breeding of cold tolerant and drought tolerant varieties. And, there is Sarail Farming System Research site in the neighborhood of Chapal of Godagari Upazila, but this Site does not accumulate the data as to irrigation condition in dry season either, because of unsatisfactory

irrigation facilities. In regard to upland crops there are substations of a regional station at Syampur and at Chapai Nawabganji respectively. The main crops researched of the former are wheat and oilseed, etc. and the latter is mango, etc., although both stations are located outside of the Project. Such organization as the above also has hindered research.

Therefore, it seems important to provide immediately the research facilities and workers necessary for cultivation examination of paddy and upland crops under irrigation condition before the implementation of the Project in order to develop and accumulate adaptable farming practice and knowledge in the Barind area.

As mentioned above, BARC which is the apex organization for planning and coordinating research activities of all research institutes provides financial and material support as well as manpower training to strengthen research activities of all components of the national agricultural research system under the policy direction of a Governing Council of which the President is the Minister of Agriculture. It seems necessary that the Government strengthens the research activities for NRIP through BARC, in order to accumulate the examination results as to farming technique under the irrigation condition.

It is also necessary that Government promotes the cooperation as to transfer of technology results, exchange of information and training of research stuff through BARI and BRRI.

## 11-2. Extension Services

Under DAE which plays the main role in the transfer of technology at regional, zila, upazila and union levels, the extension service organizations with working staff are established respectively. Especially those at upazila and union levels are the smallest unit, and at the same time, are staff of Upazila or Union Parishad which is headed by an elected upazila Chairman, too. At upazila level, each one of Upazila Agricultural Officer (UAO) and Assistant and Junior Agricultural Extension Officers and two Subject Matter Officers(SMO) are working staffs. Most of AAXOs who are supervisors to Block

Supervision of Agricultural Extension (BS) are graduates of intermediate College of general course but are not agricultural engineers. Therefore SMO who are graduates of the universities and are agricultural engineers play the role including instructor to BS with Subject Matter Specialist (SMS). But as the number of them is insufficient now, it is difficult to expect them to play the role as instructors to BS.

BS who has been trained for two years at Agricultural Extension Training Institute (AFTI) situated in eight areas over the country visits Contact Farmers (CF) in order to initiate them new agricultural technique. CF spread the same information to general farmers (Non-CF). This system is called Training and Visit (T&V) system in which one BS covers 80 CFs and one CF covers 10 Non-CFs, namely one BS covers 800 farmers that corresponds to an area covered by one BS of 800 ha to 960 ha. But this density per BS is low whereas the national target for rainfed agriculture is one BS per 400 ha. The responsibilities of BS mainly concern the establishment of demonstration plots (on average one in each Union), the provision of supplies via the KSS/BSS, the introduction of seeds of new varieties and assistance of co-operatives in obtaining credit, etc. It is said that not only the number of them is sufficient but also the quality of their activities is low. The problems facing the present extension services which should be solved urgently are to attempt thorough going and complete instruction of new agricultural technique to farmers through progress of quality and increase of number of BS, to increase SMO as well as to strengthen study and training to UAO and SMO in Central Extension Resources Development Institute (CERDI). As mentioned above, although there is Train & Visit system covering Uazila, Union and farmers which has District Office as a center, it is evident that staffs and materials related to extension including vehicles are insufficient in both quality and quantity at present. In order to practice satisfactory activity aimed at extension services to the expansion of cropped area and introduction of new techniques for irrigated agriculture after implementation of the Project, it is indispensable to train and newly assign the staffs concerned, and to strengthen provision of materials and facilities.

Research results are delivered in regular meetings between

researchers and staffs of offices at central level and country level respectively and technical problems are brought forward from extension offices side to researchers' side in the process of discussion.

However, co-operation between research side and extension side on the spot by establishment of demonstration plots will be attained in the future because of insufficient staffs, and their inferior quality.

Especially agricultural extension service and research activities on irrigation are little done in the Barind area. Therefore, it is necessary to select crops which are suitable for soil, climate and geographical features in the Barind area, and to strengthen instruction on farming practices. For this purpose, a pilot farm with about an area of 5 ha is to be constructed near Godagari in the Barind area and agricultural extension service is to be concretely strengthened and promoted.

The function of the pilot farm is as follows :

1) research on paddy and upland crops suitable to Barind Area.
2) research on farming practices for each crop
3) implement of rearing, educating and training staffs of extension services in order to extend research results of the above 1) and 2)
4) implement of extension service activities as to farming practices and of feed back from the spot to the above 1) and 2)

## 11-3 Local Government Work

As mentioned above, the representative local Government called the Upazila Parishad consists of an elected Union Chairman and officials of most of the Upazila level department of the development offices (see Figure V-6-1 ). They are under control of the development office, at the same time, they are now working under control of the elected Upazila Chairman who is the chief executive of the Upazila Parishad. Therefore, officials of Upazila Parishads in the Project area who have the functions tied up with the will of the people and national policies for the development project(program) at the local

level have to fulfill the functions to NRIP. The Central Government takes measures to finance the local development program to be undertaken by the Upazila Parishad. Thus, the Upazila Parishads in the Project area have to become the focal point of all development activities at the local clevel projects or programmes of their own with a reasonable scale and also have to become the implementing authority for execution of the divisible components of national level projects and programmes, which support the NRIP at national levels.

## 11-4. Agricultural Credit

The bank's operational strategy for Bangladesh, which is in accord with the Government's priorities, places primary emphasis on agriculture, energy and human resource development. Especially, the heavy concentration of bank lending in agriculture (51% of total lending) reflects the dominance of this sector in the economy of Bangladesh. The Government would expand availability of agricultural credit and at the same time improve the recovery of maturing loans in order to aid farmers by means of effective utilization of funds. The rate of recovery of agricultural credit would be raised from about 55 percent in FY1986 to 60 percent in FY1987. Financial resources provided for institutional credit have been limited, which has been the major constraint to the wider use of agricultural institution credit by the small farmers. Though the total institutional credit given to agriculture by nationalized commercial banks, i.e. Bangladesh Krishi Bank (BKB), Sonali Bank, Bangladesh Samabaya Bank and others, has increased by about 300 percent between 1980/81 and 1984/85, 80 percent of the total credit requirements are still met from non-institutional sources for which the annual interest rate exceeds 50 percent. Therefore the Government and Banks would endeavor more and more to expand availability of agricultural institution credit.

Agricultural institution credit is channelled to borrowers by two routes : one is directly, another one is through UCCA-KSS/BSS/MBSS system. The proportion of the former is about 60 percent and the latter is about 40 percent. Moreover, borrowers of the former will

be able to rent at interest of only 16 percent, while borrowers of the latter have to rent at interest of 19 percent (short term loan) to 16 percent (medium term loan) although they can rent without any collateral. Barides, when penal interest is included, loan interest is 22 percent in all cases.

It is expected that the proportion of agricultural institution credit channel through UCCA-KSS/BSS/MBSS system increase more and the interest rates reduce more than current respective ones, and also that borrowers through UCCA-KSS/BSS/MBSS system under Project of BWDB are able to rent at an appropriate interest rates i.e., 14 percent for short-term loan and 12 percent for medium-term loan which are the same as in the case of Project under BRDB.

## 12. Proposed Marketing System

### 12-1. Agricultural input (fertilizer)

According to proposed cropping pattern and farming practice, it is anticipated that quantity of fertilizer used in the Project area will amount to about twice as much as that being applied for foodgrains production at present.

As mentioned above, fertilizer distribution is the responsibility of the Bagladesh Agricultural Development Corporation (BADC). Domestically manufactured fertilizer is obtained from local factories and imported materials are received through the ports of Chittagong and Khulna and transported to intermediate godowns or Primary Distribution Points (PDP) or, occasionally, directly to Upazila godowns. Retail sales to farmers are made by private dealers and Integrated Rural Development Program (IRDP) cooperatives at retail prices fixed by the Government.

Until the New Marketing System (NMS) for fertilizer was introduced in 1978, the wholesaling operation had previously been a monopoly of BADC, which operated the wholesale Thana Sales Centers (TSC). Since the NMS are introduced to improve the efficiency of fertilizer

distribution by maximizing the involvement of the private sector both as retailer and wholesaler, under the NMS, BADC is progressively withdrawing from wholesaling at the upazila level and is appointing private-sector wholesalers instead. The Government is continuing to reduce public sector involvement in fertilizer distribution in favor of the private trades. BADC-operated Upazila sale centre (USCs) will be retained only in isolated areas where private-sector wholesalers show no sign of participation. Further reduction in the number of PDPs would be made following a review of the performance of the private dealers as regards marketing efficiency and fertilizer pricing.

In order to make efficient marketing and distribution of increasing fertilizer at farmers level in the Project area and meet with fertilizer pricing in future, the following items are extremely necessary.

1) UCCAs are being strenuously encouraged to act as wholesalers for fertilizer and are given credit by BADC against bank guarantee.
2) UCCAs may be smoothly permitted to use the USC godown for its fertilizer trading operation where a BADC-USC operation has been withdrawn.
3) UCCAs would be provided fertilizer stores with capacity which is able to establish and manage a trading concern (e.g. 100mt capacity).

Besides, under NMS, dealers who buy fertilizer from BADC are allowed a commission of TK 275 and TK 162 per mit. for lifting of fertilizers from PDP and USC respectively.

## 12-2. Agricultural Output (foodgrains)

It is expected that quantity of foodgrains (rice and wheat) produced in the Project area will amount to about four times as much as that produced at percent.

According to Farm Economic Survey, in the Project area, it is said that about 60% of total production are actually marketed. As mentioned above, in order to sustain farmers' incentives to produce, the Government, through the Ministry of Food (MOF), has implemented a

price support programme for major crops including paddy and wheat. Over the years the focus of MOF's procurement operation has been shifted from ensuring adequate public stocks to guaranteeing minimum prices for producers. Though the level of the foodgrain procurement price has largely brought the significant stabilization of prices in the open market, however procurement prices are often lower than the open market prices in recent years.

Accordingly, out of paddy actually marketed in the Project area, only about 15% passes MOF's procurement channel and the remaining 85% is marketed in the open market. The former is mostly composed of paddy produced by smaller farmers which is hulled with traditional dheki or small mills and the latter is composed of that by larger farmers which is exclusively hulled with large mills. This fact shows that the differential in income between those farmers is extanding more and more.

Accordingly, it is necessary that the Government puts the focus of MOF's procurement operation on arranging foodgrain procurement prices in order to dissolve differentials between procurement prices and open market prices as well as to guarantee minimum prices for producers. Moreover, in the care of paddy, the Government should increase quantities procured under procurement programme, which have typically ranged from 2-6 percent of total production, in order to purchase much more paddy actually marketed by smaller farmers.

On the other hand, the smaller farmers must have foodgrain storages, large-scaled rice mills and dry yards with high capacity in order to raise the quality of paddy actually marketed, and to obtain a better position to sell it, especially in the rainy season. Moreover, they must equip the means of transport such as an ox-cart, a boat and truck and provide the network of information about the market to perform adequate and quick marketing activities. But the smaller farmers do not have their own funds, collaterals and power for equipping those facilities. They would be able to do them only by forming and organizing UCCA-KSS/BSS/MBSS system, which would be also able to act as a saucer of the Government's marketing programme.

After the Project implementation, most of cropped area that is, about 48 thousand hectares are occupied by local and high yield varieties of Aman. Therefore, it is anticipated that about 190

thousand metric-ton of Aman products will be transported from farm-household to rice mills. Moreover, about 74 thousand metric-ton of milled rice out of them will be actually marketed to local market. As the capacity of a cart with a pair of buffaloes or bullocks is 1.1-1.3 or 0.9-1.2 mt (average 1.1 mt), the required total number of carts with a pair of buffaloes or bullocks passing the market road from storage or farm-household to local market is estimated at about 134 thousand on a return trip. So the number corresponds to about 2.5 times as many as that of present carts. Accordingly, it is necessary that the network of marketing roads is newly constructed or improved and maintained by the central and local Government, and at the same time, it is necessary that the means of transport such as an ox-cart (a pair of buffaloes or bullocks), a boat, or truck are adequately introduced in order to meet with paddy and wheat increasing in the Project area after the implementation of the Project.

## 13. Irrigators' Association

Farmers who get benefit from this Project have to construct farm ditches which divert irrigation water from tertiary canals into on-farm.

Efficient and economic distribution of irrigation water by this Project can not be obtained until construction of farm ditches are implemented appropriately. Moreover, inadequate operation and maintenance of water system of this irrigation equipment (main facilities to farm ditches with on-farm) after completion of the construction phase will greatly undermine the effectiveness of this Project and may even lead to the occurrence of calamities.

Though an irrigators' association is required to hold organization ability and potential funds which can construct farm ditches appropriately, control irrigation water efficiently and use them economically, there are not more excellent farmers' association than UCCA-KSS/BSS/MBSS system which has been carrying out various economic

activities and supplying the funds for these activities as mentioned in 4-1 of chapter 4. UCCA-KSS/BSS/MBSS systems are able to perform a function of irrigators' association in combination with BWDB through forming Irrigation Management Committee among themselves. Moreover they also serve as saucer of collecting irrigation water rates which the Government would intensify recovery of operation and maintenance costs from beneficiaries of publicly-funded gravity irrigation systems who are supplied with irrigation water at low service rates.

According to irrigation development plan, an water users' group at lowest level will consist of one group which is supplied with irrigation water by one farm ditch with an area of approximately 10 ha which has tertiary outlet, covering about 10 farmers. Five water users' groups at farm ditch level will form that of one tertiary level with an area of approximately 50 ha with turn-out of lateral canal, roughly correspondingly to 50 farmers. Ten water users' groups at tertiary level form that of one lateral canal level with an area of approximately 500 ha, covering 500 farmers. An irrigators' associations' unit will be composed of these ten water users' groups at one lateral canal level and/or a small command area under the main canal with an area of approximately 500 ha, which corresponds roughly to 500 farmers.

These irrigators' associations' units combine with one another to form an allied association under main canal system and/or an administrative area of Upazila, and these allied associations would form a federate irrigations' association under NRIP, which is a federate system at function level.

It is most important in order to achieve the Projects' target that Irrigation Management Committee of UCCA-KSS/BSS/MBSS system which is originally a federate organization at administrative level, can fulfill a function enough for irrigation organization, a federate system at function level by using irrigation water systematically, efficiently and economically.

The UCCA-KSS/BSS/MBSS system which has been playing an important role of promote farmers' agricultural and non-agricultural economic activities on the whole and has funding, organizing, planning and implementing abilities to be able to support farmers, must conduct water management and recover water charge rate of NRIP in

collaboration with BWDB, while BWDB must provide training programmes in order to make them master water management more and more.

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