

People's Republic of Bangladesh
Ministry of Irrigation, Water Development
and Flood Control

Flood Plan Coordination Organisation

Southwest Area Water Resources Management Project

United Nations Development Programme
(BGD/88/038)

Asian Development Bank
(TA No 1498-BAN)

FAP 4

FINAL REPORT

Volume 10

Economics

August 1993



Sir William Halcrow & Partners Ltd.

in association with
Danish Hydraulic Institute
Engineering & Planning Consultants Ltd.
Sthapati Sangshad Limited

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SOUTHWEST AREA WATER RESOURCES MANAGEMENT PROJECT (FAP-4)

FINAL REPORT

VOLUME 10 ECONOMICS

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1 INTRODUCTION

1.1 Scope

This annex sets out the background to, and basis for the financial and economic analyses used in the Southwest Area Water Resources Management Project (Flood Action Plan 4) Study (TA No 1498-BAN funded by the Asian Development Bank). It covers the derivation of prices used and describes the methods and assumptions adopted for the analyses.

The SWA study has been confined to flood control and drainage (FCD) and irrigation (I) development possibilities with no Non-FCD/I interventions (ref. Chapter 3).

Two levels of analysis were undertaken: regional and project specific.

Regional Studies

The regional level analyses were directed to the ranking of technically feasible development proposals in terms of their economic internal rates of return (EIRR), benefit: cost ratio (B/C) and net present values (NPV) of net benefits. The analyses were undertaken at economic prices (or values) and two other major evaluation parameters described in this Volume; labour and nutrition. The prices, crop budgets, labour requirements, nutrient compositions etc. discussed in this Volume were all included as inputs into the Resource Allocation and Optimisation Model (RAOM). The Model was developed as a tool for the regional multi-sectoral analyses that were necessary. A description of RAOM used in the SWA study is provided in Volume 5. The regional studies were directed to the provision of a semi-detailed evaluation of the interventions considered appropriate to improve water resource management in SWA. The study's objectives were to screen alternative development options and it was the first major stage in the selection of a number of projects that could be carried forward for further studies.

The results of the regional analyses were presented in the Second Interim Report (SIR) (November 1992) and the final, more comprehensive results in Volume 5 RAOM and the Main Report. The technical and economic screening of water resource development options in SWA identified almost 30 possible projects. Further regional analyses, which included initial environmental impact evaluations, took into account the wider implications of water management in the study area. It resulted in the selection of the eight projects for pre-feasibility study that were presented in SIR. The process deliberately selected projects most likely to result in quick returns to investment, high EIRRs and B/C ratios.

The final RAOM analyses resulted in the phased regional water resources development plan described in Chapter 7 of this volume and presented in detail in the Main Report. The economic and financial analyses of the development plan are also given in Chapter 7.

Project Studies

The seven projects resulting from the regional analyses were presented at a pre-feasibility level in the SIR, each project was subjected to separate, rather more detailed analyses than for the regional development plan as far as possible using project specific as well as Planning Unit (ref Section 1.4) data.

After presentation of SIR and the resulting discussions with the Flood Plan Coordination Organisation (FPCO) and ADB two projects were selected for further study: Chenchuri Beel Rehabilitation and the Gorai Augmentation Project. Because of the size of the latter it was agreed that these two further studies would be at the pre-feasibility level not feasibility studies as expected earlier. The two studies are set out in detail in Volumes 12 and 13 of this report, and summarised in the Main Report.

As noted earlier the SWA studies have been limited to the costs and benefits directly related to three water management aspects; regional allocation, FCD and irrigation. They include the costs estimated as needed to mitigate adverse effects on the environment, if they are considered necessary, in addition to the components that are "built in" to the projects directly.

If full advantage of FCD and other developments is to be taken there will be other costs. Costs associated with increasing the effectiveness of institutional support, credit, the provision of production inputs etc. However these would be generally applicable to development in SWA even if no water resource projects were implemented and, therefore, have not been included at this pre-feasibility stage.

1.2 Project Guidelines

The FPCO requires that FAP studies follow certain standard analysis methods to ensure that the various FAP proposals prepared for the different regions are directly comparable. The economic and related analyses presented in this Annex follow the FAP Guidelines for Project Assessment dated May, 1992.

1.3 Source of Data

The project has mainly used data from secondary sources for both the regional and project specific analyses. The principle source for base data has been the Master Plan Organisation (MPO) with additional, updated data from the Bangladesh Bureau of Statistics (BBS). The MPO was a temporary agency, as FPCO is, established for FAP. It has now been superseded by the Water Resource Planning Organisation (WARPO), a permanent body within the Ministry of Irrigation Water Development and Flood Control (MIWDFC).

Other data sources include the various departments within the Ministries of Agriculture, Fisheries and Livestock, Environment and Forests and the Ministry of Shipping. A range of data for comparative purposes was collected directly from officers at the Thana (Upazila) level, these were not used directly in the study analyses however. Further comments on sources of data are given in the following sections. The study schedule and resources reflected the requirement of FPCO that as far as reasonable the different FAP regional studies (FAPs 1 to 6) use information from a standard set of sources in order that their analyses and results can be compared directly.

1.4 Planning Framework

The SWA study area is located in the South West and South Central administrative Regions (ref. Volume 9). It includes 18 MPO Planning Areas, numbers 42 to 59. For regional planning purposes it was divided into 28 Planning Units (PU) grouped into Seven Development Blocks (DB) as shown below:

Development Blocks	Planning Unit
SW North	SW 1,2,4,5,8
SW North East	SW 3,6,7
SW Central	SW 9,10,11,12,13,14
SW South	SW 15 (Sundarbans)
SC North	SC 1,2,3,4
SC Central	SC 5,6,7,10,11,12
SC South	SC 8,9, 13

SW = South West

SC = South Central

The locations of the Development Blocks and Planning Units are shown in Figure 1.1. Table 1.1 indicates which MPO Planning area each PU mainly falls.

TABLE 1.1
Master Plan Organisation Planning Areas
and Southwest Area Planning Units

MPO Planning Area	SWA Study Planning Unit
42	SW1
43	SW4
44	SW 3,5,6
45	SW 8*
46	SW 8*, 9*
47	SW 9*
48	SW 10
49	SW 11,12,14
50	SC 3,4
51	SW 7
52	SC 5,7
53	SW 13
54	SC 10,11
55	SC 8,9,12,13
56	SC 2,6
57	SC 1
58	SW 2
59	SW 15

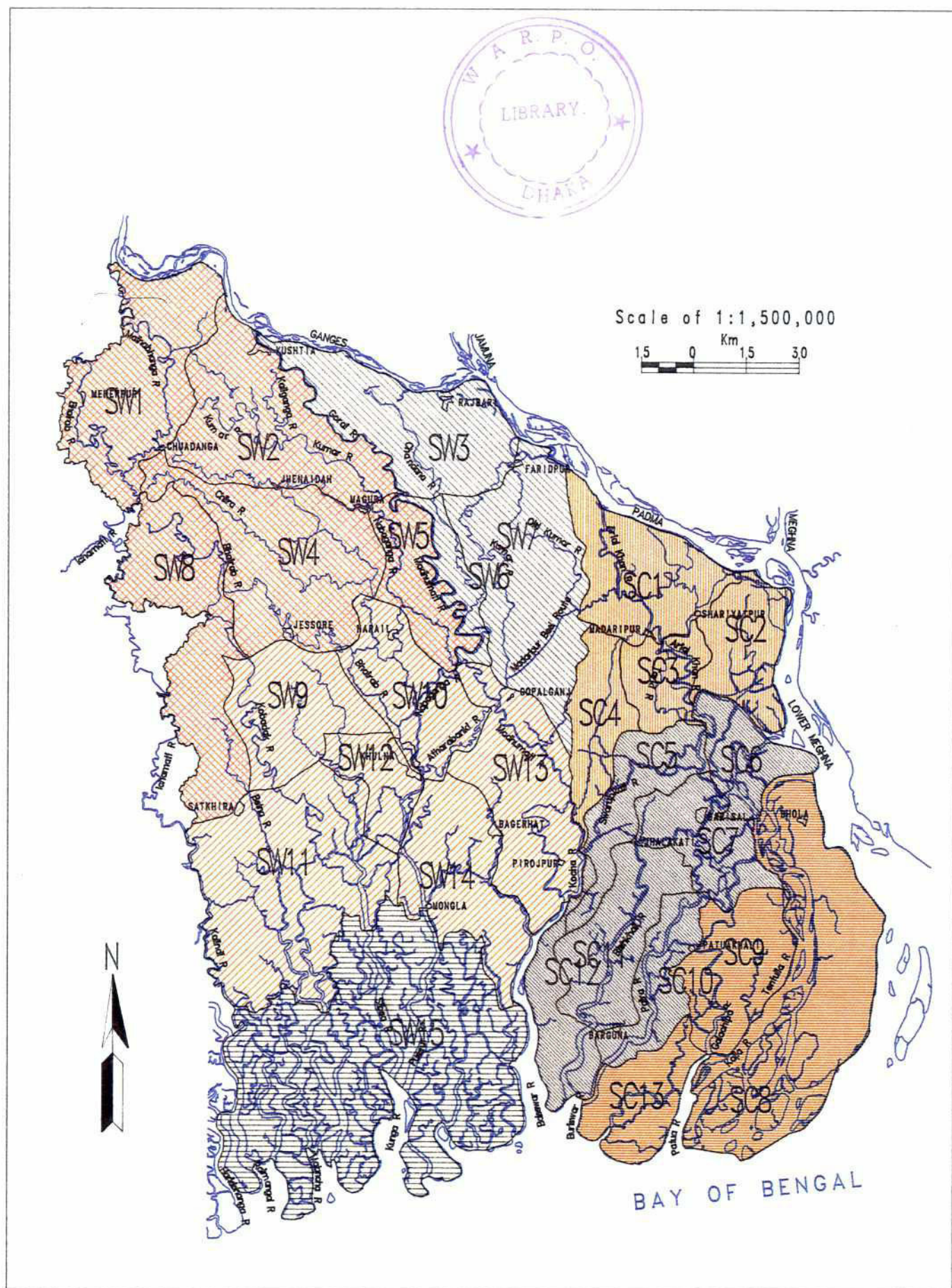
Source: MPO and Consultants studies (see text)

* Part

The PUs are based on the 44 Nedbr Afstomings Model (NAM) catchments identified by the Surface Water Modelling Centre (SWMC) and incorporated into the hydraulic models used by the Centre and refined by the SWA study team for use in the FAP-4 study (ref Volume 2, Hydraulic Studies).

The PUs have been used as the basic framework for the SWA study rather than the MPO Planning Areas to reduce the degree of aggregation necessary when using Thana, BAR/AST Soil association and other data than would be possible on the MPO/PA scale. Also, while the MPO/PA are also derived from hydrological boundaries these do not have as much detail as the smaller study PUs.

Figure 1.1



Development Blocks and Planning Units

2 FINANCIAL PRICES AND ECONOMIC VALUES

2.1 General

All the study analyses have been based on 1991 prices as stipulated by FPCO in its May 1992 Guidelines. Financial prices have been converted to economic values using the conversion factors (CF) given in the Guidelines, or relevant composite CFs derived from them.

2.2 Capital and Operation and Maintenance Costs

Capital and O & M costs were derived from a number of sources and where necessary were inflated to 1991 prices.

Construction costs were based on unit rates supplied by the Bangladesh Water Development Board (BWDB) O & M Circles in SWA and the Khulna Zone Highways Department. Unit rates from the five BWDB Circles within SWA showed no great divergence and average rates were used for all projects. However the prevailing rate for embankment construction used by BWDB is based on manual labour with minimal (hand) compaction. While it has been accepted that a large part of work will continue to be labour intensive the standard of materials, fill procedures and compaction will have to be raised especially for the proposed major works along rivers. Some machine compaction will be needed therefore, and the unit rate of Tk 40/m³ has been adopted to allow for this. Full details of construction costs are given in Annex 8, Engineering.

Irrigation system and equipment costs are based on prices supplied by the Bangladesh Agricultural Development Corporation (BADC) and a number of private sector equipment suppliers and contractors. Appendix A provides the detailed basis for tubewell and low lift pump costs at financial and economic prices. The tables in the appendix illustrate the derivation of the economic CFs for capital and operating costs of the irrigation installations.

Operation and maintenance costs include the cost of diesel or electrical pumping as specified for individual schemes and an amount of 3% pa of the capital cost for earthworks and 2% pa for structures from the year after construction.

Economic values were calculated from financial costs using the composite CFs set out in Table 2.1. The CFs take account of the different major cost elements in each construction and O & M works. Details are given in Appendix A.

TABLE 2.1

Capital and Operation and Maintenance Costs : Economic Conversion Factors

Items	Capital Costs		O & M Costs	
	Diesel	Electric	Diesel	Electric
Pumping				
Deep tubewells	0.83	0.81	0.67	1.45
Shallow tubewells	0.85	0.73	0.69	1.36
Low lift pumps 1 cusec	0.84	0.63	0.70	1.31
Low lift pumps 2 cuses	0.62	0.63	0.68	1.36
Floating pumps	0.68	na	0.70	na
Major pump stations	na	0.69	na	1.45
Distribution Systems				
Small scale (DTW, STW, LLP)		0.74		0.74
Large scale		0.77		0.77
Major drainage systems (1)		0.73		0.73
Flood Control embankments (2)		0.71		0.71

Source : Consultants estimates derived from 1992 FPCO Guidelines for Project Assessment and 1991 prices.

(1) 50% earthworks, 50% structures.

(2) 75% earthworks, 25% structures.

Table 2.1 also gives the CFs adopted for floating pumps, major (large scale) pumping station and irrigation distribution systems derived from data in Volume 8, Engineering and FPCO Guidelines. The derivation of these last CFs are set out in Appendix B.

The study analyses are at the regional and pre-feasibility levels which lack the detail required to distinguish closely differences between Planning Units. Therefore the CFs have been further weighted to reflect typical FC and D, irrigation type and energy sources. The weightings and resulting CFs applied in the study's screening of proposed developments are summarised in Table 2.2.

TABLE 2.2

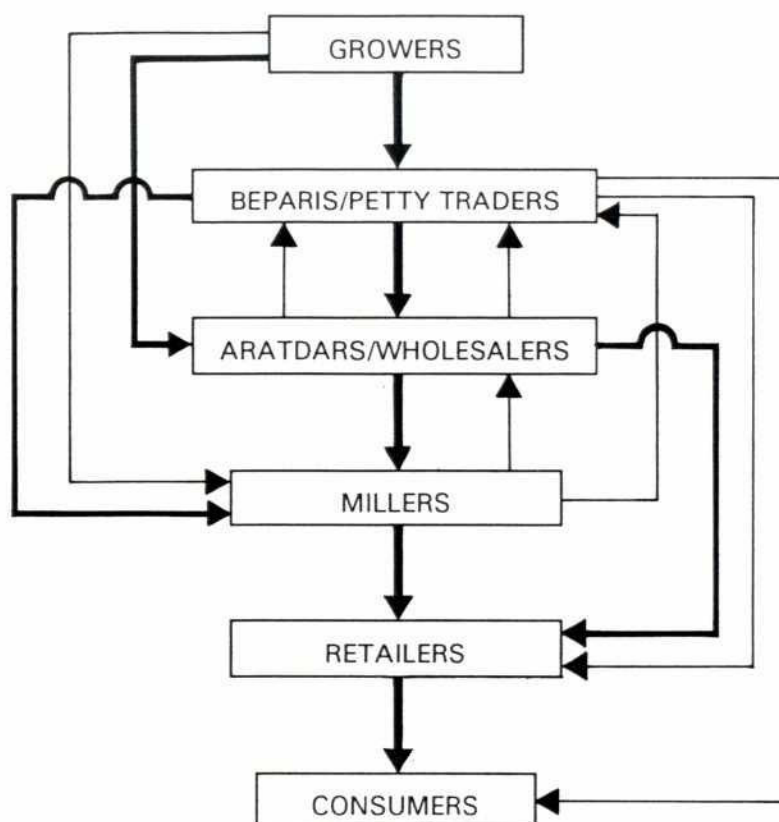
Derivation of Economic Conversion Factors for Development Projects in SWA Resource Allocation and Optimisation Model

IRRIGATION DEVELOPMENT		Small	Dist.by	DTW	DTW	STW	STW	LLP	LLP	Large scale	
Weighted		Barrages		Diesel	Elect	Diesel	Elect	Diesel	Elect	pumps Diesel	pumps Elect
Weighting		0.56	0.44	0.889	0.111	0.889	0.111	0.889	0.111	0.05	0.95
Area dev cost (per km ²)	0.740			0.83	0.81	0.85	0.73	0.84	0.62	0.68	0.69
GW pumps (per MCM/mo.)	0.829										
SW pumps (per MCM/mo.)	0.792										
SW distribution (per km ²)	0.764	0.76	0.77								
FLOOD PROTECTION CAPITAL COST		FC		ENERGY COSTS			Weighted factor			0.731	
Weighted		Embank.	Drains								
Weighting		0.19	0.81				Cost of diesel energy Cost of electric energy Weighting elec/diesel			0.630 1.540 0.111	
Rehabilitation	0.726	0.71	0.73								
New	0.726	0.71	0.73								

Source: Consultants estimates using FPCO, Guidelines for Project Assessment (1992) Conversion factors and 1991 prices.

2.3 Marketing

There is an extensive primary and secondary network of markets within SWA. Marketing is overwhelmingly within the private sector and is reported to be generally effective for the major crops, livestock and fisheries. However in areas where the transport infrastructure is less well developed local marketing is inhibited and the physical conditions of many markets can be poor. Government involvement in purchasing is declining but the Ministry of Local Government, Rural Development and Cooperatives (MLGRDC) through local administrations are responsible for market management. It is common for the management of local markets to be rented out to private agents. The structure of the marketing system is outlined below:



PRIVATE SECTOR CROP MARKETING CHANNELS

Government operates a network of foodgrain procurement centres. These are not used by the majority of farmers who favour the private market for its more extensive purchasing network, prompt payment, higher prices and informal sector credit availability. Typically crops are sold immediately after harvest to minimise on-farm losses and meet the need for cash and sharecropping obligations. Small livestock are marketed at most centres but cattle and buffalo are usually sold through recognised specialised markets held once or twice a week. As for crops, marketing of fish is carried out in the private sector through a similar system of petty traders and wholesalers. The marketing operations of the Bangladesh Fisheries Development Corporation (BFDC) are now negligible though its storage and ice plants at locations where substantial catches are handled - Khulna, Mongla and Barisal in SWA, provide services to the private sector. Typically, however fish quantities marketed are small. Fish are sold fresh and bulking-up within the system is reasonably efficient with acceptable levels of losses to the consumers (Volume 6).

Since the mid 1980s GOB has pursued a policy of transferring responsibility for input supplies from its own agencies to commercial enterprises. The Bangladesh Agricultural Development Corporation (BADC) is now only involved in seed distribution, except jute and vegetables. Fertilisers, other agro-chemicals and irrigation equipment, with the exception of deep tubewells are now in the private sector. The result has been that distribution has become more effective though without the subsidies given before 1988 costs are higher to the farmer for STW and LLP installations than they were under the BADC monopoly.

2.4 Crop Prices

The study analyses are based on 1991 crop prices obtained from the Department of Agricultural Marketing's regular survey of markets in the South West and South Central Regions. Data are collected by the Department from 46 markets. The 21 wholesale and 25 grower markets are shown on Figure 2.1 and listed by MPO Planning Area and SWA Planning Unit in Table 2.3.

The prices used in the analyses are those recorded at the growers markets. These are the primary centres mainly used by farmers. At these markets farmers sell predominantly to small scale traders (beparis) who move commodities to the larger wholesale markets where they are purchased by wholesalers (aratdars) and millers. The general structure of the marketing chain has been illustrated in the previous section.

The financial prices used are for the latest, 1991, harvest months appropriate to each crop. These prices are set out in Table 2.4. The table shows three price levels: average, high and low which reflect the variation in producer prices within the Study area and have been defined as follows:

- Average prices are the means of the figures derived from data for all 25 growers markets.
- High prices are those for each PU in excess of one standard deviation above the SWA mean price.
- Low prices are those for each PU below one standard deviation below the SWA mean.

The economic values of crops which are also set out in Table 2.4. They were derived from the financial prices by the application of the economic conversion factors given in the FPCO's Guidelines for Project Assessment dated May 1992. The table also shows the economic conversion factors used.

Figure 2.1



Location of Data Sources for Wholesale and Growers Market Prices in Southwest Region

TABLE 2.3

Location of Growers Markets in SWA for which Regular Price Data are Available

MPO Planning Area	SWA Planning Unit	Grower Market (District)
42	SW1	Gangni (Meherpur)
43	SW4	Jibannagar (Chuadanga)
44	SW3, 5, 6	Khankhanpur (Rajbari), Kanaipur (Faridpur), Lohagara (Narail)
45	SW 8	Jhikargacha (Jessore)
46	SW 8, 9	Jhikargacha (Jessore)
47	SW 9	Chuknagar (Khulna), Phultala (Khulna)
48	SW 10	Nowapara (Jessore)
49	SW 11, 12, 14	Patkelghata (Satkhira), Fakirhat (Bagerhat)
50	SC 3, 4	Takerhat (Madaripur)
51	SW 7	Shatpar (Gopalganj)
52	SC 5, 7	Babuganj (Barisal), Nalchiti (Jhalakhati)
53	SW 13	Parerhat (Pirojpur)
54	SC 10, 11	Amtali (Barguna)
55	SC 8,9,12,13	Burhanuddin (Bhola), Kalaia, Boghabandar (Patuakhali)
56	SC 2, 6	Babuganj (Barisal)
57	SC 1	Bhartisar (Shariatpur), Takerhat (Madaripur)
58	SW 2	Garagonj (Jhenaidah), Nangalband (Magura), Khalishakhandi (Kushtia)

Source : Department of Agricultural Marketing

There are also a number of crops that have either very limited distribution in SWA or for which few data were available. One value has been used throughout SWA in these instances. The crops and prices are set out in Table 2.5.

Table : 2.4
Financial and Economic Crop Prices in BWA (1991 harvest periods)

Crop	Aus L	Aus HYV	Aman L	Aman HYV	Boro L	Boro HYV	Wheat	Jute	Keshari	Lentil	Blackgram	Chickpea	Mustard	Groundnut	Onion	Garlic	Potato	Brinjal	Chilli
Financial																			
Average	575	585	625	645	580	600	580	750	710	1340	1100	1240	1350	1310	1205	2970	375	370	5335
High	620	620	680	690	610	645	610	830	800	1475	1160	1355	1490	1440	1305	3425	440	490	6240
Low	530	545	570	600	545	550	545	695	620	1205	1050	1125	1210	1100	1100	2100	310	250	4430
Economic																			
CF (I)	0.88	0.88	0.88	0.88	1.29	0.88	1.29	1.06	0.87	0.87	0.87	0.87	0.88	0.88	0.87	0.87	0.87	0.87	0.87
Average	505	515	550	570	750	530	750	805	620	1165	955	1080	1190	1150	1050	2585	325	320	4640
High	545	545	600	610	785	570	785	880	695	1285	1010	1180	1310	1270	1135	2980	385	425	5430
Low	485	490	500	530	705	485	705	735	540	1050	915	980	1065	1020	955	1880	270	220	3855
Planning Unit																			
SW1	A	A	L	A	A	A	A	A	A	A	A	A	A	A	A	..	L	A	..
SW2	A	A	A	A	L	H	L	A	H	A	A	A	L	..	A	L	A	A	..
SW3	A	A	A	A	A	A	A	A	A	A	H	A	A	..	A	A	A	A	..
SW4	L	A	A	A	H	L	H	A	H	A	..	H	H	A	..	..	A	A	..
SW5	A	A	A	A	A	A	A	A	A	A	H	A	A	..	A	A	A	A	..
SW6	A	A	A	A	A	A	A	A	A	A	H	A	A	..	A	A	A	A	..
SW7	H	H	H	H	H	H	H	A	H	A	..	H	H	..	A	..	..	..	..
SW8	A	L	A	A	A	A	A	A	A	A	A	A	A	..	A	A	A	..	..
SW9	A	A	A	H	A	A	A	A	A	A	A	A	A	..	L	A	L	A	..
SW10	A	L	A	A	A	A	A	A	A	A	A	A	A	..	A	A	A	A	..
SW11	A	A	L	A	A	H	L	A	..	..	A	..	A	..	A	..	L	..	..
SW12	A	A	L	A	L	A	L	A	..	..	A	..	A	..	..	..	L	..	..
SW13	L	A	A	A	..	L	..	..	A	..	..	..	A	..	..	..	..	..	..
SW14	A	A	L	A	L	H	L	A	..	..	A	..	A	..	..	..	L	..	..
SC1	A	H	H	A	H	A	H	H	A	A	..	H	A	..	L	A	A	H	A
SC2	A	H	A	H	..	A	..	..	A	..	..	..	..	..	..	..	A	H	L
SC3	H	H	A	H	H	A	H	H	A	A	..	..	H	..	A	A	A	H	A
SC4	H	H	H	H	H	A	H	H	A	A	..	..	H	..	A	A	H	H	A
SC5	A	A	A	L	A	A	A	..	A	H	..	..	..	..	..	..	A	H	L
SC6	A	H	A	H	..	A	..	..	A	..	..	..	..	..	..	..	A	H	L
SC7	H	H	H	A	A	H	A	..	A	H	..	..	..	..	..	..	A	H	L
SC8	A	A	A	L	..	L	..	..	..	..	..	..	A	H	..	H	A	H	L
SC9	A	A	A	L	..	L	..	..	..	..	..	..	A	H	..	H	A	A	..
SC10	A	A	L	L	..	A	..	..	..	..	..	..	..	A	..	..	A	..	..
SC11	A	A	L	L	..	A	..	..	..	..	..	..	..	A	..	..	A	..	..
SC12	A	A	A	L	..	A	..	..	..	..	..	..	..	A	..	..	H	..	..
SC13	A	A	A	L	..	A	..	..	..	..	..	A	A	H	..	H	H	A	..

wkin\lab2.4

Source : Department of Agricultural Marketing. Data for growers Markets.
 Note : Prices rounded to nearest Tk. 5 from average harvest data.
 (1). FPCO Guidelines for Project Assessment, 1992
 (2). A = Average, H = High, L = Low (see text).
 .. = No Prices Available

TABLE 2.5

Crop Financial and Economic Prices Applied Throughout SWA (1991)

Crop	Tk/100 kg		
	Financial Price	CF	Economic Value
Tomato	580	0.87	505
Cauliflower	605	0.87	525
Cabbage	320	0.87	280
Sugarcane	118	0.87	103
Tobacco	2250	0.87	1960
Sweet Potato	220	0.87	190
Mungbean	1800	0.87	1566
Sesame	1200	0.87	1044
Kaon	800	0.87	696
Watermelon	100	0.87	87
Banana	750	0.87	696
Seed Cotton	1930	0.87	1680
Straw:			
Wheat	30	0.87	26
Rice (local)	95	0.87	83
Rice (HYV)	72	0.87	63
Jute sticks	255	0.87	222
Pulses	50	0.87	44

Source: Department of Agricultural Marketing

Note : Prices rounded to nearest five Taka from average harvest period figures.

2.5 Crop Production Inputs

2.5.1 General

Input price data for labour, animal and mechanical draught power and fertilisers were collected directly from staff of the Directorate of Agricultural Extension and Department of Agricultural Marketing at the Thana level as part of the study's field investigations. The data are given in Table 2.6 for each of the 27 PUs (excluding SW 15, the Sundarbans).

2.5.2 Labour

The average financial wage rate for unskilled labour in the study area in 1991 was Tk 42/day. This was for an eight hour day without food, with food the reported rate was Tk 29/day. There were distinct variations within SWA as shown in Table 2.6. Rates are higher than average in the central and southern parts of SCR, Development Blocks SC-C and SC-S, and lower in most of DB SW-N and SC-N. The general variations are illustrated in Figure 2.2. The high and low price levels were defined in the same manner as for crop

Table : 2.6
Labour Rate & Input Price by Planning Units of Southwest Area

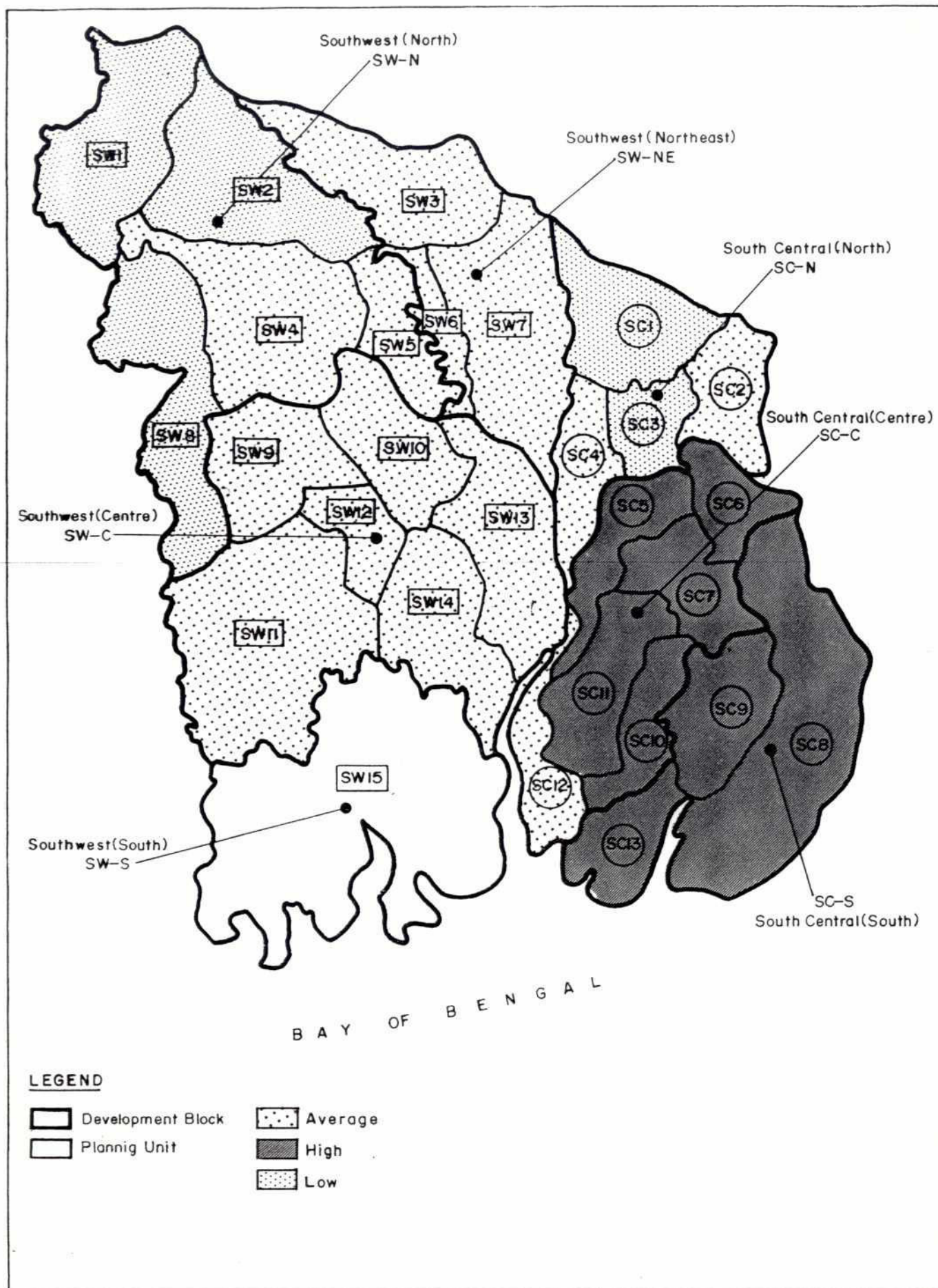
Planning Unit	Labour Rate (Tk./day)						Bullock (Tk./day) (1)	Cowdung (Tk./q) (2)	Urea Tk./q	Input Prices		Gypsum Tk./q	Zn Tk./q
	Average		High		TSP Tk./q	MP Tk./q							
	+ Food	- Food	+ Food	- Food									
SW1	24.66	30.40	33.53	40.00	19.43	24.43	64.77	90.54	590.65	692.07	533.63	283.08	2821.42
SW2	26.21	35.61	33.66	44.73	20.49	28.74	70.35	95.32	589.23	716.27	571.58	289.68	2409.86
SW3	27.05	41.89	31.37	47.55	21.50	34.05	82.46	79.35	541.08	681.80	544.01	322.12	2835.33
SW4	28.75	41.15	36.61	49.88	21.72	30.60	74.91	83.18	595.85	697.52	549.38	289.50	2525.27
SW5	27.34	39.65	35.41	45.93	19.95	30.15	91.56	82.76	570.75	675.29	571.43	273.17	2474.90
SW6	27.81	37.87	37.87	47.73	19.73	28.33	74.95	85.43	516.50	615.16	488.66	296.99	2584.70
SW7	23.89	37.52	32.11	45.15	19.21	28.56	80.03	99.66	574.95	677.38	566.66	340.63	2602.15
SW8	26.76	34.65	33.84	42.18	19.97	27.20	65.73	82.20	560.76	659.14	530.02	262.70	2633.33
SW9	29.16	40.52	38.07	50.11	21.20	31.70	64.33	90.23	593.01	686.21	553.90	275.82	3054.66
SW10	24.11	36.51	31.43	44.56	19.71	29.71	71.38	89.10	599.40	691.83	528.39	293.73	3155.58
SW11	29.38	40.98	36.78	51.22	21.45	30.61	64.26	90.92	560.70	668.45	534.50	297.97	3125.46
SW12	30.82	44.19	40.89	53.26	21.56	32.06	66.99	96.02	599.10	651.23	551.97	331.58	3425.99
SW13	28.50	39.75	35.21	46.54	23.17	31.49	77.86	90.47	580.74	672.18	562.48	348.94	3404.25
SW14	28.62	39.85	38.48	51.27	23.29	33.29	75.68	97.11	606.68	705.42	551.81	367.87	3180.14
Average	27.36	38.61	35.38	47.15	20.88	30.07	73.23	89.45	577.10	677.85	545.60	305.27	2873.79
SC1	24.47	35.37	32.41	43.96	19.57	25.78	79.36	105.51	583.65	680.86	544.21	370.36	3045.09
SC2	27.24	37.24	34.20	46.86	21.28	28.30	77.04	62.68	600.13	703.57	541.84	365.82	2705.36
SC3	24.52	36.29	34.07	46.77	18.76	25.82	81.77	97.39	596.77	710.84	580.42	386.69	2714.45
SC4	27.05	40.14	35.74	47.95	22.06	29.31	75.96	100.53	593.85	711.36	581.86	378.55	2713.56
SC5	34.80	47.23	41.60	55.10	27.78	36.03	79.71	76.52	598.97	723.51	597.74	413.14	2938.19
SC6	39.71	50.00	46.43	59.86	29.71	40.00	79.55	65.25	597.13	701.44	505.74	400.00	3014.35
SC7	35.47	47.87	38.26	57.40	28.68	38.08	84.95	82.52	594.43	722.30	567.60	400.00	3153.31
SC8	29.88	50.30	39.72	53.67	23.28	38.79	90.70	85.63	634.83	722.99	644.22	400.00	3048.98
SC9	37.45	55.00	47.18	64.91	28.59	42.45	79.10	72.81	600.00	796.30	598.15	399.07	2509.26
SC10	34.54	48.67	43.03	59.51	25.85	39.31	71.28	90.96	608.97	739.49	576.41	372.56	2635.90
SC11	31.57	48.22	39.55	57.68	26.49	36.27	78.92	70.88	578.01	717.98	582.55	356.37	3148.18
SC12	31.62	44.17	41.58	54.13	27.88	39.32	87.30	91.76	625.52	719.09	638.17	310.79	3330.29
SC13	37.58	47.58	38.87	58.87	24.43	36.29	79.43	78.86	600.00	725.79	562.89	381.45	2685.53
Average	31.99	45.24	39.43	54.36	24.95	35.06	80.39	83.18	600.94	721.19	578.60	379.60	2895.57
Average	29.68	41.92	37.40	50.75	22.92	32.56	76.81	86.31	589.02	699.52	562.10	342.44	2884.68

Source : Consultants Field Studies.

(1) Rate includes hire of Ploughman, (2) q = quintal = 100 kg.

[crop\pu2\tab2-6]

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Figure 2.2



SWA Labour Wage Rates

prices in Section 2.4 above. The average of the three price categories were calculated with the following results which are used in the analyses:

	<u>Average</u>	<u>High</u>	<u>Low</u>
Labour wage rates Tk/day Financial ⁽¹⁾	40	50	35
C F	.75	.75	.75
Economic	30	38	26

⁽¹⁾ rounded to nearest Tk 5/day

2.5.3 Draught Power

The crop budgets are based on animal draught power. Mechanical cultivators are used throughout SWR but to a limited extent only.

The cost of hiring a team of bullocks varies throughout the study area, from about Tk 65 to Tk 87 a day. The variations based on DAE Thana data are shown in Table 2.6 and the areas of average, high and low costs are illustrated in Figure 2.3. These costs include the hire of the implement and ploughman. In the crop budgets labour is shown separately and a lower figure, Tk 45/day (financial Tk 39/day economic) is used for all PUs.

2.5.4 Fertilisers

Fertiliser prices were obtained from a variety of sources: Field visits, IFCD Farm level Fertiliser Use Surveys, BBS reports on the use of agricultural inputs for the major crops and a comprehensive questionnaire survey to DAE staff in each of the Thanas in the Study Area. The results of the latter are set out by PU in Table 2.6. The prices are those experienced by growers and reflect the various imperfections in market conditions that affect producers.

Financial and economic prices adopted for the analyses are given in Table 2.7.

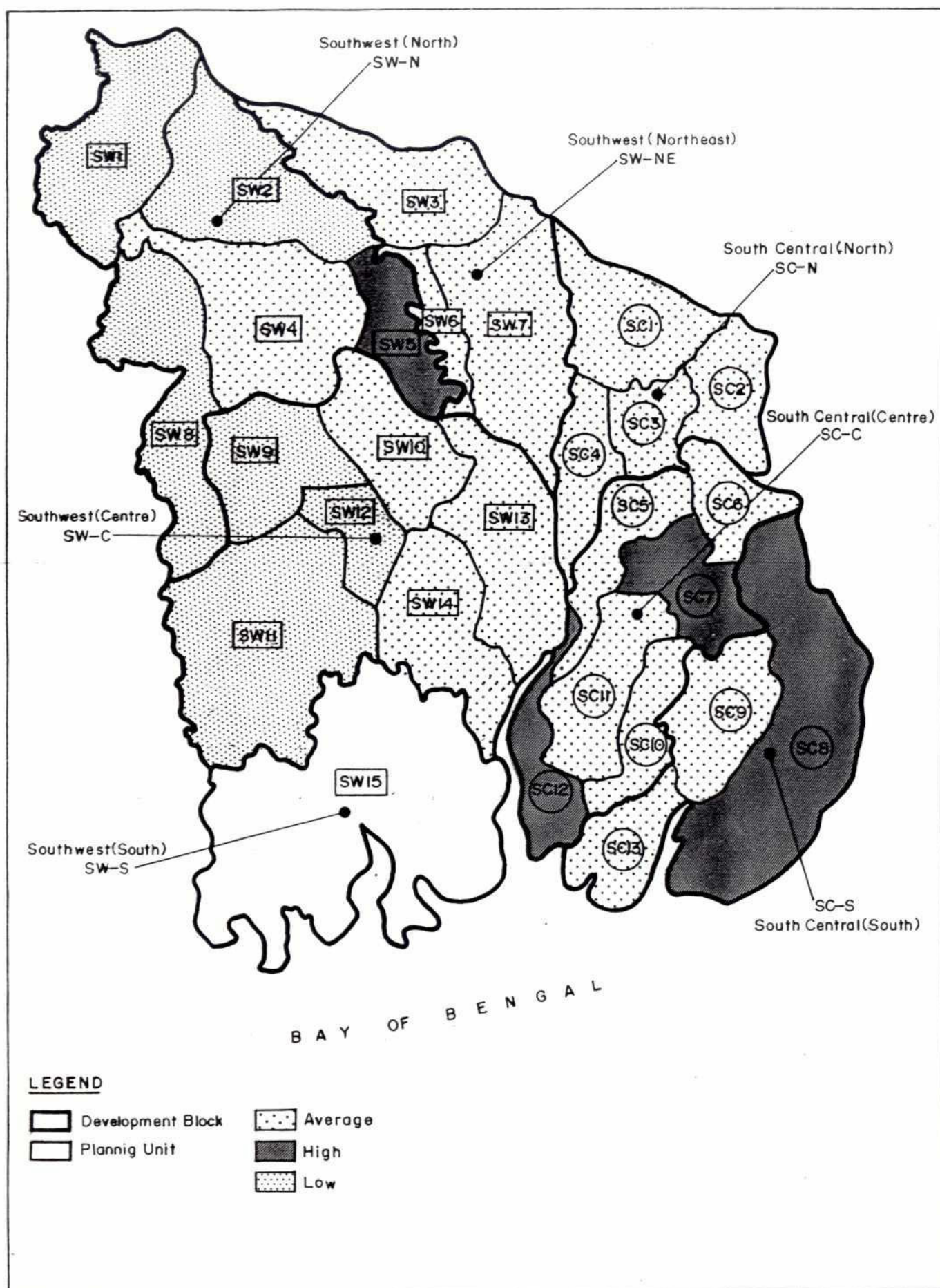
2.5.5 Seed

Farmers frequently use their own seed. Reflecting this the imputed price of seed for all crops except those shown in Table 2.7 has been calculated as x1.5 the value of output which is shown in Tables 2.4 and 2.5.

2.5.6 Summary of Prices

Table 2.7 sets out the financial prices and economic values that have been adopted for the study analyses.

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Figure 2.3



SWA Bullock Draught Power Hire Rates

TABLE 2.7

Summary of Financial Prices and Economic Values of Selected Crop Inputs, 1991 Prices

Item	Unit	Financial Price	Conversion Factor (1)	Economic Value
Fertilisers:	Kg			
Urea		5.9	1.45	8.6
TSP		7.0	1.88	13.2
MP		5.6	2.02	11.3
ZnSO ₄		29.0	0.87	25.2
Gypsum		3.4	0.87	3.0
Manure		0.9	0.87	0.8
Labour:	man day			
Planning Unit				
SC5 to 11, SC13		50	0.75	38
SC1,3,SW1,2,8		35	0.75	26
All other PU		40	0.75	30
Bullock draft (1)	day	45	0.87	39
Pesticide	Kg	510	0.87	444
Seed :	Kg			
HYV Aus, HYV Boro		11	0.88	9.7
HYV Aman		9	0.88	7.9
All other paddy		10	0.88	8.8
Wheat		12	1.29	15.5
Jute		24	1.06	25.4
Sugarcane		1	0.95	0.95
Tobacco		400	0.87	348
Vegetables		400	0.87	348
Onion		600	0.87	522
Tomato		500	0.87	435
Cabbage		600	0.87	522
Cauliflower		600	0.87	522
Brinjal		500	0.87	435
All other Seeds		x1.5 output price in Tables 2.4, 2.5		x1.5 output value in Table 2.4, 2.5

Source: Consultants Studies and FPCO Guidelines for Project Assessment, May 1992

(1) Cost of bullock and plough hire only-does not include cost of ploughman.

2.6 Fish

Prices of fish at the primary markets vary throughout SWA according to location and the species sold. The study findings about the sector are described in detail in Volume 6, Land

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Resources, Agriculture and Fisheries. However data on local prices are not as comprehensive as for crops and one set has been adopted for use in the analyses. The prices used were considered broadly typical of those prevailing in 1991 and a CF of 1.25 has been used in deriving economic value of fish. The value of 1.25 has been adopted from FAP-12/13 studies.

Source	Financial Tk/kg	Economic Tk/kg
Capture	35.0	44.0
Culture	50.0	62.5
Shrimp: export	133.0	166.0
Local sales	20.0	25.0

2.7 Forest Products

A wide variety of fruit and fuel tree species are grown in SWA in the social forestry sector. Prices used in the study were obtained from consultants field studies and the Swiss Development Corporation - BARI report "Optimisation of Agroforestry Systems in Bangladesh at Household and National Levels" (September 1990). These have mainly been expressed in terms of their annual values each hectare net of costs (ref Section 3.4).

Data on state forestry output prices and costs (Sundarbans) were obtained from the Department of Forestry. Details are given in Volume 7, Forestry and Navigation.

3 BENEFITS AND PENALTIES

3.1 General

The proposals for improved water resource management in SWA arise from a regional strategy for water distribution and use which takes into account water availability, and broad requirements for the agricultural sectors, navigation, urban areas and environmental considerations related to the possible changes in water regimes. The strategy is described in Volume 1, Regional Water Resources Management Plan and the Main Report. The proposed development programmes are centered on projects for flood protection and drainage with irrigation components in most cases. The assessment of benefits and penalties therefore are confined to those arising from FCD and irrigation. These direct quantifiable benefits may be considered the minimum that can be expected. However they can be enhanced if improvements are made in other sectors : credit, production support services, institution strengthening for example. Such developments are not confined to FCD/I however and therefore are not included, in the study analyses. The direct benefits fall into two categories:

- (i) higher output arising from improved water regimes and land resource conditions, and
- (ii) the reduction in agricultural and non-agricultural damage from floods that do not occur every year.

Penalties can also be expected from changes in resource conditions as in the case of fisheries discussed in Section 3.3 below.

3.2 Crops

3.2.1 General

The benefits considered in greatest detail are those expected from crop production which accounts for about three quarters of the value, net of direct costs, of total agricultural, forestry and fishery output in SWA. Three possible sources of benefit were considered; yield, cropping pattern and annual flood damage reduction. Detailed background and base data on the cropping sector are provided in Volume 6; Land Resources, Agriculture and Fisheries.

3.2.2 Yield

Different regimes of water depth and periods of inundation result in crop yield variations which may be substantial. The farmers in-field water management is critical to obtaining the best yields but under most conditions in Bangladesh this is only possible with well designed and operated FCD systems. The SWA proposals for FCD projects can be expected to result in higher crop yields therefore. However there are insufficient data to either assess the changes in inundation patterns resulting from development proposals or to relate these to particular levels of yield in enough detail for the regional and pre-feasibility analyses to include crop yield improvements from FCD as a benefit.

3.2.3 Cropping patterns

Each flood zone category; F0, F1 etc; is associated with a distinct cropping pattern. These relate to both annual cropping intensity and to the types of rice and other crops that are

grown. Overall crop area data for the SW and SC Regions and SWA to illustrate this are given in Table 3.1, for rainfed crops and Table 3.2 for irrigated cultivation. In the kharif season there is an increase in the proportion of sugarcane and HYV rice and a decrease in the other major crops, jute and local rice varieties from the deeper flooded areas (F2, F3/4) to shallower areas (F0, F1). The changes that occur within the rice crops are illustrated below:

	F0	F1	F2	F3/4
	Percent			
Rainfed				
Rice:				
Local	83	91	100	100
HYV	17	9	0	0
Irrigated				
Rice:				
Local	7	35	12	43
HYV	93	65	88	57

Table 3.3 shows that the variation between the two study area Regions is not great.

TABLE 3.1
Rainfed Cropping Patterns
(percent total cropped area each season)

Crop	F0			F1			F2			F3/4		
	SWR	SCR	SWA	SWR	SCR	SWA	SWR	SCR	SWA	SWR	SCR	SWA
Kharif paddy												
Local	68	80	72	81	89	85	96	96	96	100	100	100
HYV	16	12	15	9	7	8	0	0	0	0	0	0
Jute	11	3	9	9	3	6	4	4	4	0	0	0
Sugarcane	5	5	5	1	1	1	0	0	0	0	0	0
Rabi paddy												
Local												
HYV	0	0	0	0	0	0	1	0	1	23	46	29
Wheat	1	0	1	0	0	0	0	0	0	0	0	0
Pulses	4	4	4	11	7	9	10	11	11	20	10	18
Oilseed	44	37	42	41	59	49	49	49	49	33	30	33
Spices	24	15	22	31	17	25	32	33	32	23	14	21
Other	4	9	5	4	7	5	1	3	2	0	0	0
	23	35	26	13	10	12	7	4	5		0	0
Cropping Intensity	139	144	140	141	156	148	150	175	157	119	120	119

Source: From adjusted MPO data (Figures rounded)

TABLE 3.2

Irrigated Cropping Patterns
(percent total cropped area each season)

Crop	F0			F1			F2			F3/4		
	SWR	SCR	SWA	SWR	SCR	SWA	SWR	SCR	SWA	SWR	SCR	SWA
Kharif paddy												
Local	11	9	10	49	53	50	100	100	100	0	0	0
HYV	81	91	85	50	47	49	0	0	0	0	0	0
Jute	0	0	0	0	0	0	0	0	0	0	0	0
Sugarcane	8	0	5	1	0	1	0	0	0	0	0	0
Rabi paddy												
Local	0	0	0	0	11	3	1	4	2	35	66	43
HYV	56	68	61	54	58	55	76	92	82	65	33	57
Wheat	24	5	17	19	2	14	14	0	9	0	0	0
Pulses	4	1	3	7	3	6	5	2	4	0	0	0
Oilseed	6	11	7	9	18	12	3	2	3	0	1	0
Spices	3	7	5	2	2	2	0	0	0	0	0	0
Other	7	8	8	9	7	8	1		1	0	0	0
Cropping Intensity	209	214	211	221	227	223	118	114	117	92	90	92

Source: From adjusted MPO data (Figures rounded)

TABLE 3.3

Local and HYV Paddy Varieties by Flood Category
(percent total annual paddy crop)

Crop	F0	F1	F2	F3/4
Rainfed				
SW Region				
Local	81	89	100	100
HYV	19	11	0	0
SC Region				
Local	87	93	100	100
HYV	13	7	0	0
SW Area				
Local	83	91	100	100
HYV	17	9	0	0
Irrigated				
SW Region				
Local	8	33	11	35
HYV	92	67	89	65
SC Region				
Local	5	38	12	66
HYV	95	62	88	34
SW Area				
Local	7	51	12	43
HYV	93	49	88	57

Source: From adjusted MPO data

Under rainfed conditions FCD projects typically result in the absence of the boro rice crop that is grown in the F3/4 areas. The proportion of high value spices and vegetables - mainly sweet potatoes rises. The wheat area decreases, as a result of the lower soil moisture regimes in F0 and F1 areas as shown in Table 3.1.

Irrigation, whether in conjunction with FCD works or not, leads to benefits from a higher cropping intensity in less deeply flooded areas. MPO data, however indicate that annual intensities are higher in rainfed F2 and F3/4 areas.

Irrigation leads to a major increase in boro rice production. Table 3.4 clearly shows that when irrigated areas are within FCD development, where F0 and F1 areas predominate, there is a major shift from local to HYV boro rice:

Under irrigation in the less deeply flooded areas rabi cropping also exhibits higher proportions of wheat, spices and other high value crops such as vegetables and potatoes.

TABLE 3.4

Boro Local and HYV Paddy Varieties by Flood Category
(percent total annual paddy crop)

Crop	F0	F1	F2	F3/4
Rainfed				
SW Region				
Local	0	0	1	35
HYV	100	100	99	65
SC Region				
Local	0	16	4	66
HYV	100	84	96	33
SW Area				
Local	0	5	2	43
HYV	100	95	96	57

Source: From adjusted MPO data

Note: Table 4.3 gives data for total, kharif and rabi (boro) paddy.

The changes in cropping patterns noted above for SWA as a whole arising from FCD and irrigation developments are found in each Planning Unit (ref Volume 6, Land Resources, Agriculture and Fisheries). The degree of the changes varies from PU to PU according to the differences in cropping patterns. Higher value F0 and F1 flood class land is increased at the expense of the less productive F2 and F3/4 classes, the latter being eliminated. While the benefits from such changes vary from PU to PU according to cropping patterns local prices and marketing conditions the figures in Table 3.5 illustrate the benefits without additional non-FCD/I interventions.

The study analyses have been based on the positions found in each individual PU leading first to the initial selection of areas in the RAOM and then to the specific project proposals presented in the Main Report.

TABLE 3.5

Annual Cropping Pattern Gross Margins in each Flood Class (1991 Economic Values)

000 Tk/ha/a

Region	Rainfed				Irrigated			
	F0	F1	F2	F3/4	F0	F1	F2	F3/4
South West	8.97	8.50	5.52	5.03	24.63	21.69	13.93	10.73
South Central	8.69	7.89	5.90	5.09	22.98	21.19	14.19	9.89

Source: Consultants estimates.

3.2.4 Unusual flood damage

Table 3.6 sets out the extent of damage to crops from unusual floods. Damage is expressed as the proportion of the total crop area and is the average reported during the 19 years, 1971 to 1989. In the study analyses the economic value of these crop losses, at 1991 prices, has been added to the benefit from changes in cropping patterns discussed above. The benefits do not accrue if irrigation is provided without FCD works.

Appendix C provides damage losses for each crop for each Planning Unit at 1991 economic values.

TABLE 3.6

Kharif Season Average Crop Losses due to Floods 1971-1989

Percent total area of crop

Planning Unit	Aus L	Aus M	Aman B	Aman TL	Aman TM	Jute	Sugarcane
SW1,2	2.43	3.07	4.32	2.13	2.13	0.84	0.53
SW4,5,8,9,10	3.04	3.3	6.25	1.32	3.4	4.06	0.25
SW11,12,13,14	3.02	2.21	4.73	0.23	0.24	1.86	0
SW3,6,7 SC1,2,3	3.74	5.06	7.68	23.16	15.85	2.35	3.54
SC4,5,6,7,11	2.49	0.43	5.01	0.95	3.25	1.45	0.27
SC8,9,10,12,13	1.63	2.7	0	0	0	0	0

Source: Derived from BBS data.

In some areas damage in the kharif season can be severe as illustrated in Appendix C. Planning Units SW3, 6 and 7 and SC1, 2 and 3 being the worst affected areas. However even in these PUs the extent of damage in terms of the area and value of total annual cropping is as follows, in other PUs the damage does not exceed 3%:

Average Annual Loss (Percent Area)

SW3	6.80	SC1	4.72
SW6	6.88	SC2	7.66
SW7	4.79	SC3	6.47

(Based on BBS data 1971 - 1989)

3.3 Fisheries

Previous studies (FAP 12/13) confirm SWA observations that FCD works have a negative effect on capture fisheries. In practice culture fisheries programmes have not been pursued sufficiently to make up for the losses that culture fisheries suffer. The loss of capture fisheries severely affects fishing households and adversely affects the whole population which has access to flood areas, beels and baors. Culture fisheries development can be no benefit to those with no land (fishing and landless households) or most marginal and small scale farmer's (with less than 1.0 ha) who have too small an area to provide both crop and fish pond areas. Generally larger farmers benefit from the opportunity to develop culture fisheries, and experience so far indicates that culture fishery programmes are not sufficiently pursued or supported to make up for capture fisheries lost when FCD schemes are implemented.

The SWA has a diverse capture fisheries resource that includes production from flood plains, beels and baors as well as the numerous rivers and estuaries in its southern parts. In addition there is a developing culture shrimp culture sector in areas where brackish water is seasonally available, mainly PUs SW9 to 14. The water resource management plan recognises the importance of the shrimp industry to export earnings and development proposals take care not to adversely affect it. It is also acknowledged that the industry has generated social conflict between shrimp farmers, usually the more influential, and rice growers on whose land the shrimp are, seasonally, produced. Volume 6, Land Resources, Agriculture and Fisheries discusses these problems and the proposals made are directed towards enabling the socially weaker rice growers to become small scale shrimp farmers rather than rent out or seasonally lose share-cropped land to entrepreneurs who now typically predominate the cultivated shrimp industry.

The adverse effects of FCD on fin fisheries has been included in the assessment of SWA proposals using the loss estimates given in Table 3.7. The figures in Table 3.7 were applied for all PUs in SWA.

TABLE 3.7

Capture Fisheries Losses Resulting from FCD Development (1991 Prices)

Source of Loss	Loss Kg/Ha	Financial				Economic				
		income Tk/Kg	costs Tk/Kg	G M Tk/Kg	G M Tk/Ha	income Tk/Kg	costs Tk/Kg	G M Tk/Kg	G M Tk/Ha	G M Tk000/Km ²
Flood Plain:										
not flooded before	0	0	0	0	0	0	0	0	0	0
flooded before										
now dry	37	35	10	25	925	44	7	37	1356	136
still flooded	20	35	10	25	500	44	7	37	733	73
beels:										
remaining	150	35	10	25	3750	44	7	37	5498	550
lost	400	35	10	25	10000	44	7	37	14660	1466
rivers/khals	15	35	10	25	375	44	7	37	550	55

Sources: Consultants estimates and FAP 12/13.

The values of culture, pond and baor, fisheries in each PU are given in Table 3.8 and 3.9 respectively. These are based on current reported yields and together with the figures given in Table 3.10 for shrimp-rice culture were used in RAOM to assess the value of present SWA production and the changes expected with different water resource development proposals.

In the study analyses the following have been assumed:

- Floodplain: F3/4 and F2 areas that are eliminated by FCD works are lost completely and F2 areas that remain suffer the partial loss quantified in Table 3.7.
- Beels and baors: that the same proportion of beels and baors lie within each project area as in the PUs within which they are situated.

TABLE 3.8

Value of Culture Fisheries: Ponds (1991 Prices)

PU	Financial					Economic			
	Yield Kg/Ha	Value Tk/Kg	Costs Tk/Kg	G M Tk/Kg	G M Tk/Ha	Income Tk/Kg	Costs Tk/Kg	G M Tk/Kg	G M Tk/Ha
SW 1	865	50	13	37	32005	62.5	9.23	53.27	46079
2	865	50	13	37	32005	62.5	9.23	53.27	46079
3	870	50	13	37	32190	62.5	9.23	53.27	46345
4	1925	50	15	37	67375	62.5	10.65	51.85	99811
5	1940	50	15	37	67900	62.5	10.65	51.85	100589
6	940	50	13	37	34780	62.5	9.23	53.27	50074
7	870	50	13	37	32190	62.5	9.23	53.27	46345
8	1890	50	15	35	66150	62.5	10.65	51.85	97997
9	1960	50	15	35	68600	62.5	10.65	51.85	101626
10	1840	50	15	35	64400	62.5	10.65	51.85	95404
11	1530	50	15	35	53550	62.5	10.65	51.85	79331
12	1560	50	15	35	54600	62.5	10.65	51.85	80886
13	1240	50	15	35	43400	62.5	10.65	51.85	64294
14	1530	50	15	35	53550	62.5	10.65	51.85	79331
SC 1	875	50	13	37	32375	62.5	9.23	53.27	46611
2	900	50	13	37	33300	62.5	9.23	53.27	47943
3	900	50	13	37	33300	62.5	9.23	53.27	47943
4	915	50	13	37	33855	62.5	9.23	53.27	48742
5	930	50	13	37	34410	62.5	9.23	53.27	49541
6	935	50	13	37	34595	62.5	9.23	53.27	49807
7	950	50	13	37	35150	62.5	9.23	53.27	50607
8	930	50	13	37	34410	62.5	9.23	53.27	49541
9	1160	50	15	35	40600	62.5	10.65	51.85	60146
10	1145	50	15	35	40075	62.5	10.65	51.85	59368
11	1030	50	15	35	36050	62.5	10.65	51.85	53406
12	1055	50	15	35	36925	62.5	10.65	51.85	54702
13	1160	50	15	35	40600	62.5	10.65	51.85	60146

Source: Consultants estimates based on Department of Fisheries Data

TABLE 3.9

Value of Culture Fisheries : Baors 1991 Prices

PU	Financial					Economic			
	Yield Kg/Ha	Value Tk/Kg	Costs Tk/Kg	G M ⁽¹⁾ Tk/Kg	G M Tk/Ha	Income Tk/Kg	Costs Tk/Kg	G M Tk/Kg	G M Tk/Ha
SW 1	195	50	12	38	7410	62.5	8.52	53.98	10526
2	255	50	12	38	9690	62.5	8.52	53.98	13765
3	195	50	12	38	7410	62.5	8.52	53.98	10526
4	295	50	12	38	11210	62.5	8.52	53.98	15924
5	300	50	12	38	11400	62.5	8.52	53.98	16194
6	205	50	12	38	7790	62.5	8.52	53.98	11066
7	200	50	12	38	7600	62.5	8.52	53.98	10796
8	280	50	12	38	10640	62.5	8.52	53.98	15114
9	300	50	12	38	11400	62.5	8.52	53.98	16194
10	290	50	12	38	11020	62.5	8.52	53.98	15654
11	195	50	12	38	7410	62.5	8.52	53.98	10526
12	240	50	12	38	9120	62.5	8.52	53.98	12955
13	205	50	12	38	7790	62.5	8.52	53.98	11066
14	190	50	12	38	7220	62.5	8.52	53.98	10256
SC 1	200	50	12	38	7600	62.5	8.52	53.98	10796
2	200	50	12	38	7600	62.5	8.52	53.98	10796
3	205	50	12	38	7790	62.5	8.52	53.98	11066
4	190	50	12	38	7220	62.5	8.52	53.98	10256
5	0	50			0	62.5		62.5	0
6	0	50			0	62.5		62.5	0
7	0	50			0	62.5		62.5	0
8	0	50			0	62.5		62.5	0
9	0	50			0	62.5		62.5	0
10	0	50			0	62.5		62.5	0
11	0	50			0	62.5		62.5	0
12	0	50			0	62.5		62.5	0
13	0	50			0	62.5		62.5	0

Source: Consultants estimates based on Department of Fisheries Data

⁽¹⁾ GM = gross margin

TABLE 3.10

Value of Shrimp-Rice Culture (1991 prices)

	Yield main	Kg/Ha by prod.	Financial	Economic
			Tk/Ha	Tk/Ha
PU SW 11 SW 14				
Shrimp	304	0	15075	24860
Rice (1)	1900	3800	3060	3210
Total			18135	28070
PU SC 12				
Shrimp	304	0	13945	23960
Rice (1)	1900	3800	1660	1680
Total			15605	25640

Source: Consultants estimates

(1) Assumes that shrimp growers vacate land in good time for the aman rice to be transplanted by mid August and that land is available for nursery beds before that time.

3.4 Forestry

3.4.1 General

The effect of SWA proposals on forestry have not been closely defined. However the present value of social and state forestry, the Sundarbans, were taken into account when deciding on a number of aspects of water management and regional allocation in RAOM. Details are given in Volume 7, Forestry and Navigation.

3.4.2 Social Forestry

Broadly SWA is divided into three social or homestead forestry areas. The differences, which are general at this stage, are given in Table 3.11.

TABLE 3.11

SWA Social Forestry Economic Value (1991 prices) (1) (2)

Tree	G M Tk/Ha	Area A		Area B		Area C	
		%	G M Tk/Ha	%	G M Tk/Ha	%	Tk/Ha
Mango	56032	2	1121	2	1121	2	1121
Jackfruit	74264	2	1485	2	1485	2	1485
Coconut	96057	2	1921	30	28817	10	9606
Betelnut	184365	10	18437	10	18437	10	18437
Lemon	5090	2	102	2	102	2	102
Guava	85765	2	1715	2	1715	2	1715
Date	149420	30	44826	2	2988	20	29884
Fuel spp.	39323	40	15729	40	15729	47	18482
Bamboo:							
grove	46650	8	3732	8	3732	5	2333
field	83300	2	1666	2	1666	0	0

Source : Consultants estimates based on "Optimisation of Agroforestry Systems in Bangladesh at Household and National Levels" (1990); BARI, Swiss Development Corporation.

(1) For area location see text. (2) Rounded

The study Planning Units are located within the three major social forestry zones as follows:

	Entire PU	Part PU
Area A	SW 1-4, 8	SW 5-7,9,10
Area B	SW 11-14 SC 8-13	SW 12, 13 SC 5, 7
Area C	SW 7 SC 1-4, 6	SW 10,12,13 SC 5, 7

SW 15 is the Sundarban forest area.

3.4.3

Sundarbans

The value of the Sundarbans arise from a wide variety of resources. A preliminary and approximate estimate of the total value at 1991 economic prices is about Tk.4592 M/Year. This includes an imputed value of fish breeding as well as capture fisheries that amounts to 82% of the estimated total annual value. A breakdown of the value is set out in Table 3.11. This is an approximate estimate.

TABLE 3.12

Sundarbans Present Value at 1991 Prices (M Tk/Year)

Product	Financial			C F (Costs)	Economic		
	Gross Income	Costs	Net Income		Gross Income	Costs	Net Income
Sawlogs	300	23	277	0.74	300	17	283
Fuelwood	44	9	35	0.74	44	7	37
Pulpwood	70	30	40	0.74	70	22	48
Tr poles	27	4	23	0.72	27	3	24
Fronds:							0
Nypa	78		78		78		78
Phoenix	2		2		2		2
Honey	8		8		8		8
Wax	2		2		2		2
Shell	1		1		1		1
Grass	1		1		1		1
Fish	195	60	135		195		195
Fish breeding	3553		3553		3553		3553
Protection:							
Coastal	320		320		320		320
Wildlife	40		40		40		40
Total	4641	126	4515		4641	49	4592
Tk000/Km ² total ⁽¹⁾			1126				1145
less fish breeding Tk 000/km ²			240				259

Source: Consultants estimates (Volume 7 Forestry and Navigation)

⁽¹⁾ Area (PU SW15) = 4010 km²

3.5 Employment

The SWA study proposals will generate employment from two main activities : construction and maintenance of FCD and irrigation works and through increased labour inputs mainly in the agricultural sector.

In the agricultural sector more labour will be required as cropping intensities are raised and to handle the higher levels of crop inputs and yields that are made possible by changes in FCD/I conditions. It has been established by FAP 12/13 however, that much of the additional labour needed on farms is met from the farm household's own resources, especially in the case of marginal and small-holdings where there is often a degree of under-employment. Nevertheless this may mean that some small farm families reduce their off-farm employment which then will be available for others. However it has not been possible to assess the extent of the creation of new jobs, as opposed to reducing under employment, but estimates of the increase in total labour requirements for each irrigated and rainfed cropping pattern in each of the 27 PUs were calculated. Details by PU are given in Appendix D for the total areas in each unit. The data are summarised for the two SWA Regions in Table 3.13.

TABLE 3.13

Summary of Total Crop Labour Inputs for Irrigated and Rainfed Cropping Pattern in each SWA Planning Unit

Area	F0	F1	F2	F3/4	Total
Rainfed Sw Region					
M pd (1) pd ha	56.3 185	95.3 174	35.7 160	10.8 122	198.1 170
SC Region					
M pd pd/ha	80.1 187	181.9 180	51.7 166	14.7 123	328.7 176
Irrigated SW Region					
M pd (1) pd/ha	52.0 350	73.8 341	11.1 202	2.9 174	139.8 320
SC Region					
M pd pd/ha	81.9 351	102.0 343	17.8 205	3.9 170	205.5 321

Source: Derived from various sources including MPO, DAE and BARI
(1) pd = person day.

Rainfed cropping under present conditions requires between 170 and 176 person days each hectare (pd/ha) varying from about 185 pd/ha on F0 land to 122 pd/ha in F3/4 areas. Irrigated cropping requires 320 pd/ha - from 350 pd/ha on F0 to 170 pd/ha on F3/4. With the current ratio of rainfed to irrigated land the overall labour inputs are just over 210 pd/ha.

3.6 Nutrition

The effect of the development proposals and the availability of selected nutrients from agricultural output has been chosen as a key non-economic indicator of benefits. At the scale of the study the assessment has been rather basic. It was confined to gross changes in the production of energy, protein, fat and carbohydrate. Insufficient data were available to forecast the net effect on households of different social classes, nevertheless the indicators are of value in the formulation of the direction of development at the regional level and a relevant indicator for the pre-feasibility studies. The results of the nutrition analyses are set out in Volume 9, Impact Studies.

The source for the nutritional content of the different commodities was " Tables of Nutrient Composition of Bangladeshi Foods" published in 1988 by Helen Keller International and the World Food Programme.

The data used in the study analyses are set out in Tables 3.14 for rice, wheat and sugarcane; 3.15, pulses; 3.16, oilseeds; 3.17, spices and 3.18 and 4.19 other rainfed and irrigated crops respectively. In the case of all crops except the cereals and sugarcane the figures reflect the different mixtures of the crops found to predominate in each PU (see Chapter 4 and Appendix E).

The data are in terms of the nutrient content in each tonne of crop and were applied directly to the production data in GIS for each PU and flood category to give the present availability of the four nutrient components and estimate the changes that will occur with the proposed interventions in SWA.

The results must be considered approximate and are indicative only. This is the result of (a) the quality of cropping data available and (b) the use of representative crops under the categories pulses, oilseeds, spices and other crops.

For each Planning Unit the present levels of nutrient production in total and per head of the 1991 population are given in Volume 11, Regional Data and discussed in Volume 9, Impact Studies.

TABLE 3.14

Nutrient Composition of Crop Categories which are Constant Throughout SWA.

	Each tonne			
	Energy Million Kcal	Protein Kg	Carbohydrate Kg	Fat Kg
Rice (1)	3.560	64	790	4
Wheat (2)	3.410	121	694	17
Sugarcane (stem)	0.600	10	?	neg.

Source: Tables of Nutrient Composition of Bangladeshi Foods.
Helen Keller Int., World Food Programme 1988.

- (1) Rice parboiled milled
- (2) Wheat coarse flour (atta)

Note: Quantities are per tonne crop
neg = negligible

TABLE 3.15

Nutrient Composition of Representative Pulses

Each tonne

Crop used	Planning Units			
	Energy Mill Kcals	Protein Kg	Carbohydrate Kg	Fat Kg
Pulses				
SW 1	3.430	251	590	7.0
2	3.439	265	579	6.6
3	3.468	261	596	22.2
4	3.472	231	595	18.5
5	3.438	263	580	6.6
6	3.442	270	576	6.4
7	3.440	267	578	6.5
8	3.456	239	595	13.9
9	3.430	251	590	7.0
10	3.442	270	576	6.4
11	3.440	267	578	6.5
12	3.436	260	583	6.3
13	3.446	276	571	6.2
14	3.450	282	566	6.0
SC 1	3.436	260	582	6.7
2	3.444	273	573	6.3
3	3.441	268	577	6.5
4	3.443	272	574	6.3
5	3.450	282	566	6.0
6	3.450	282	566	6.0
7	3.417	269	566	8.1
8	3.406	265	566	8.8
9	3.373	253	567	10.9
10	3.450	282	566	6.0
11	3.450	282	566	6.0
12	3.450	282	566	6.0
13	3.395	261	567	9.5

Source: Consultants estimates based on Tables of Nutrient Composition of Bangladeshi Foods. Helen Keller Int., World Food Programme 1988

TABLE 3.16

Nutrient Composition of Representative Oilseeds.

Each tonne

Crop used	Planning Units			
	Energy Mill Kcals	Protein Kg	Carbohydrate Kg	Fat Kg
Oilseeds				
SW 1				
2				
3				
4				
5	5.410	220	238	397
6				
7				
8				
9				
10	5.514	205	318	402
11	5.410	220	238	397
12	5.584	242	253	405
13	5.558	226	250	409
14	5.465	211	241	406
SC 1	5.476	230	245	401
2				
3				
4	5.410	220	238	397
5				
6	5.482	208	242	409
7	5.465	211	241	406
8	5.553	238	251	404
9	5.650	218	256	421
10	5.527	235	248	402
11	5.410	220	238	397
12	5.410	220	238	397
13	5.553	238	251	404

Source: Consultants estimates based on Tables of Nutrient Composition of Bangladeshi Foods. Helen Keller Int., World Food Programme 1988

TABLE 3.17

Nutrient Composition of Representative Spices

Each tonne

Crop used		Planning Units			
		Energy Mill Kcals	Protein Kg	Carbohydrate Kg	Fat Kg
Spices					
SW	1	0.833	29.9	176	
	2	0.500	12.0	111	
	3	0.719	20.3	158	
	4	|			
	5	|	0.712	13.6	161
	6	|			
	7	0.500	12.0	111	
	8	0.739	35.0	168	
	9	0.712	13.6	161	
	10	0.739	13.8	168	
	11	0.785	27.3	167	
	12	0.855	14.7	195	
	13	1.030	16.0	237	1.0
	14	0.924	15.2	212	
SC	1	0.814	28.8	173	
	2	|			
	3	|			
	4	|			
	5	|			
	6	1.030	16.0	237	
	7	|			
	8	|			
	9	|			
	10	|			
	11	|			
	12	|			
	13	|			

Source: Consultants estimates based on Tables of Nutrient Composition of Bangladeshi Foods. Helen Keller Int., World Food Programme 1988

TABLE 3.18

Nutrient Composition of Representative other Crops Rainfed

Each tonne

Crop used		Planning Units			
		Energy Mill Kcals	Protein Kg	Carbohydrate Kg	Fat Kg
Other Crops Rainfed					
SW	1	0.470	11.5	103	3.4
	2	0.642	11.6	145	3.3
	3	0.585	12.5	159	4.0
	4	0.454	11.3	99	3.3
	5	0.900	11.1	208	2.7
	6	1.200	12.0	282	3.0
	7	1.200	12.0	282	3.0
	8	0.450	9.8	98	2.3
	9	0.200	9.0	36	2.0
	10	0.500	9.9	110	2.3
	11	0.662	13.2	150	4.4
	12	0.200	9.0	36	2.0
	13	1.085	14.0	254	4.5
	14	0.900	11.1	208	2.7
SC	1	|			
	2		1.200	12.0	3.0
	3				
	4		1.016	15.2	5.4
	5				
	6	|			
	7				
	8		1.200	12.0	3.0
	9				
	10				
	11				
	12				
	13				

Source: Consultants estimates based on Tables of Nutrient Composition of Bangladeshi Foods. Helen Keller Int., World Food Programme 1988

TABLE 3.19

Nutrient Composition of Representative other Crops Irrigated

Each tonne

Crop used		Planning Units				
		Energy Mill Kcals	Protein Kg	Carbohydrate Kg	Fat Kg	
Other Crops Irrigated						
SW	1	0.970	16.0	226	6.0	
	2	0.580	14.4	128	3.8	
	3	0.260	13.0	47	2.0	
	4	0.970	16.0	226	6.0	
	5	0.544	14.2	119	3.6	
	6	|				
	7					
	8		0.970	16.0	226	6.0
	9	|				
	10		0.615	14.5	137	4.0
	11		0.970	16.0	226	6.0
	12	0.746	20.0	166	4.0	
	13	0.544	14.2	119	3.6	
	14	0.970	16.0	226	6.0	
SC	1	0.343	20.2	62	1.5	
	2	0.260	13.0	47	2.0	
	3	0.615	14.5	137	4.0	
	4	0.260	13.0	47	2.0	
	5	0.970	16.0	226	6.0	
	6	0.335	19.5	61	1.5	
	7	|				
	8		0.260	13.0	47	2.0
	9		|			
	10	0.686		14.8	154	4.4
	11	0.260		13.0	47	2.0
	12	|				
	13		0.970	16.0	226	6.0

Source: Consultants estimates based on Tables of Nutrient Composition of Bangladeshi Foods. Helen Keller Int., World Food Programme 1988



4 CROP BUDGETS

4.1 Introduction

The principal and most widespread effect of the study proposals for water resource management in SWA will be on agricultural, particularly crop production. The effect on cropping has been paid special attention therefore. Detailed budgets were prepared at the 1991 economic prices set out in Chapter 2. The levels of yield, physical inputs and cultivation practices found in SWA are discussed in detail in Volume 6, Land Resources, Agriculture and Fisheries. The following sections set out the assumptions made for the study analyses. Because physical conditions, cultural practices, market access and prices vary within SWA (see Volume 6 and Chapter 2 this Volume) a set of budgets were prepared for each PU except SW15, the Sundarbans.

There are two sets of crop area data : Thana (1991/92) figures collected during the Consultants field studies and MPO data. The latter, which are only available for the crop categories shown in Table 4.3, do not illustrate differences in the crop composition in each category throughout SWR and SCR but has been used in the crop area estimates for the study analyses. The composite, typical mixtures are listed in Appendix E.

To show the differences within each crop category by PU the Thana field study data were taken and proportions calculated for the different MPO categories : pulses, oilseeds, spices and other crops, the latter divided according to irrigated and rainfed production. The major crops in each category were used to derive the composite budgets used in the study analyses. Major crops were defined as:

Pulses, oilseeds,spices : any crop or combination of crops that accounted for 70% or more of the total crop category area.

Other crops : on the same basis but using 50% of the total area (separately for irrigated and rainfed crops). The lower figure was used since there were insufficient market data on certain "other crops" including radishes which are widely grown in some areas.

These approximations are considered reasonable when calculating the financial and economic value of production at the farmgate. However for the calculation of nutritional levels they are less satisfactory. Since the FPCO Guidelines specify that MPO data must be used and it does not show the division between crops in each broad category the production expressed in nutritional terms must be considered as a rough estimate.

4.2 Yields

Tables 4.1 to 4.3 set out the yields used in the calculation of crop budgets. The basis for the figures was the five year mean, 1986/87-1990/91, from BBS for all six districts in SWA combined. Three yield levels were defined; high, low and average; and the five year mean for each individual district determined by reference to these three levels. The yield levels were defined as follows:

- high : one standard deviation or more above the six district mean;
- low : one standard deviation or less below the mean, and
- average: the mean yield for all six districts combined.

The BBS data are provided by Greater District and yields were attributed to Planning Units that fall wholly or mainly within each district, as illustrated in Table 4.1.

Rice and paddy yields

Rice and paddy grain and residue yields adopted are given in Table 4.1. The paddy yields are used in the crop budgets, the rice used in calculating gross production in terms of nutrients (see Section 3.6). The milling outturn used to convert paddy to rice was 67%.

TABLE 4.1

Rice and Paddy Yields SWA (t/ha)

CROP	Jessore SW 4-5-8-9-10 Kushtia SW 1 - 2		Khulna SW 11-12-13-14		Faridpur Sw 3-6-7/ SC 1-2-3		Barisal SC 4-5-6-7-11		Patuakhali SC 8-9-10-12-13	
	Grain	Resi dues	Grain	Resi dues	Grain	Resi dues	Grain	Resi dues	Grain	Residues
Rice Kharif										
B Aus										
M Aus	.77	2.30	.77	2.30	.67	2.00	.77	2.30	.67	2.20
B Aman	1.94	2.90	1.94	2.90	2.28	3.40	1.94	2.90	1.61	2.40
L Aman	.80	2.40	.80	2.40	.80	2.40	.80	2.40	.80	2.40
M Aman	1.27	3.80	1.27	3.80	1.01	3.00	1.27	3.80	1.27	3.80
	2.08	3.10	2.08	3.50	2.08	3.10	2.08	3.10	2.08	3.10
Rabi										
L Boro										
M Boro	1.68	5.00	1.34	4.00	1.34	4.00	1.34	4.00	.87	2.60
	2.61	3.90	2.61	3.90	3.28	4.90	2.61	3.90	1.68	2.50
Paddy Kharif										
B Aus										
M Aus	1.15	1.15	1.15	1.15	1.00	1.00	1.15	1.15	1.00	1.00
B Aman	2.90	2.90	2.90	2.90	3.40	3.40	2.90	2.90	2.40	2.40
L Aman	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
M Aman	1.90	1.90	1.90	1.90	1.50	1.50	1.90	1.90	1.90	1.90
	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10
Rabi										
L Boro										
M Boro	2.50	2.50	2.00	2.00	2.00	2.00	2.00	2.00	1.30	1.30
	3.90	3.90	3.90	3.90	4.90	4.90	3.90	3.90	2.50	2.50

Source: Consultants estimates based on BBS data 1986/87-1990/91

Other crop yields

Where comparative data between districts were deficient one yield was taken for all PUs. These yields are set out in Table 4.2.

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TABLE 4.2

Standard Crop Yields Applied to all SWA Planning Units (t/ha)

Crop	Rainfed	Irrigated	Crop	Rainfed	Irrigated
Wheat	1.7	2.4	Mustard	0.7	
Jute	1.7		Groundnut	1.2	
Sugarcane	41.5	50.0	Sesame	0.6	
Tobacco	0.8		Onion	4.1	
Potato	8.0	12.0	Garlic	3.2	
Lentil	0.7		Chillie	0.6	
Keshari	0.7		Tomato	6.0	
Chickpea	0.8		Cabbage		9.7
Mungbean	0.5		Cauliflower		8.5
			Sweetpotato	9.0	

Source: MPO and BBS 1986.87 - 1990/91 District average.

The yields of the different pulses, oilseeds, spices and other crops in Table 4.2 were applied in the relevant proportions of the crops within these crop groups to arrive at the yields shown in Table 4.3 and used in the study analyses (see Appendix E).

TABLE 4.3

Composite Crop Yields for Major Groups of Crops (t/ha)

PU SW	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Pulses	.70	.70	.73	.73	.70	.70	.70	.72	.70	.70	.70	.70	.70	.70
Oilseeds	.70	.70	.70	.70	.70	.70	.70	.70	.70	.90	.70	1.04	.88	.68
Spices	3.79	4.10	3.44	2.70	2.70	2.70	4.10	2.53	2.70	2.53	3.83	1.76	0.60	1.30
Other														
Rainfed	6.70	7.25	7.50	6.66	8.10	9.00	9.00	6.75	6.00	6.90	7.20	6.00	8.50	8.10
Irrigated	12.00	10.74	9.70	12.00	10.62	12.00	12.00	12.00	12.00	10.85	12.00	10.60	10.62	12.00
PU SC	1	2	3	4	5	6	7	8	9	10	11	12	13	
Pulses	.70	.70	.70	.70	.70	.70	.64	.62	.56	.70	.70	.70	.60	
Oilseeds	.85	.70	.70	.70	.70	.67	.68	.98	.90	.93	.70	.70	.98	
Spices	3.71	.60	.60	.60	.60	.60	.60	.60	.60	.60	.60	.60	.60	
Other														
Rainfed	9.00	9.00	9.00	8.20	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	
Irrigated	9.04	9.70	10.85	9.70	12.00	9.10	9.10	9.70	9.70	11.08	9.70	9.70	12.00	

Source: Consultants estimates based on MPO and Thana data.

4.3 Physical Inputs

Volume 6 reviews and discusses the use of seeds, fertilisers, labour and other crop inputs in SWA. Labour inputs have been referred to earlier (Section 3.5, Appendix D). These vary between PUs in relation to the different yields used in the budgets. Other physical inputs were assumed to be constant throughout SWA since the data that were available indicated relatively small differences. The levels of inputs used are given in Table 4.4 for all crops.

TABLE 4.4
SWA Physical Crop Inputs

Name of Crop	Bullock Pair-day	Seed kg/ha	Pesticides kg/ha	Manures (Ton) Cowdung	Fertilizers (kg/ha)				
					Urea	T.S.P	M.P	Gypsum +	Zinc +
B. Aus (R)	35	90	-	1.00	15	-	-	-	-
D. Aus (R)	30	70	-	-	15	-	-	-	-
B. Aus - B. Aman (R)	35	90	-	-	-	-	-	-	-
T. Aus (Local) (R)	42	30	0.50	1.00	20	10	-	-	-
Aus (M) (IR)	42	30	0.50	1.00	70	40	10	-	-
T. Aman (Local) (R)	35	30	0.50	-	30	10	-	-	-
B. Aman (R)	35	90	-	-	-	-	-	-	-
T. Aman (M) (IR)	35	30	1.00	-	80	40	15	30	-
Boro (L) (IR)	42	30	0.25	-	25	-	-	-	-
Boro (M) (IR)	42	30	1.00	-	160	80	30	60	4
Wheat (R)	35	130	0.50	1.50	80	25	10	-	-
Wheat (IR)	35	130	0.50	1.50	120	60	30	60	4
Jute (R)	42	10	0.50	1.50	30	10	8	-	-
Sugarcane (R)	42	5000	1.00	2.00	120	90	30	-	-
Sugarcane (IR)	42	5000	1.00	2.00	140	100	40	60	5
Potato (R)	45	1000	0.50	1.00	80	40	20	-	-
Potato (IR)	45	1000	1.00	2.00	120	65	60	60	4
Lentil (R)	25	30	-	-	-	-	-	-	-
Khesari (R)	-	40	-	-	-	-	-	-	-
Chickpea (R)	25	35	-	-	-	-	-	-	-
Mungbean (R)	14	20	-	-	-	-	-	-	-
Blackgram (R)	14	25	-	-	-	-	-	-	-
Mustard (R)	25	8	0.50	-	20	30	10	30	2
Groundnut (R)	28	90	-	-	-	-	-	-	-
Sesame (R)	21	10	-	-	-	-	-	-	-
Onion (R)	45	6	-	1.00	20	-	-	-	-
Garlic (R)	45	90	-	1.00	20	-	-	-	-
Chilli (R)	42	0.5	0.50	1.00	25	-	-	-	-
Cotton (R)	30	10	1.00	-	80	30	40	30	3
Cotton (IR)	30	10	1.50	-	120	60	80	30	3
Tobacco (R)	45	0.1	0.50	1.00	20	15	-	-	-
Tobacco (IR)	45	0.1	0.50	1.00	50	30	30	-	-
Tomato (R)	42	0.1	0.50	1.50	80	40	-	-	-
Cabbage (IR)	42	0.1	0.50	1.50	100	40	20	-	-
Cauliflower (IR)	42	0.1	0.50	1.50	100	40	20	-	-
Sweet Potato (R)	30	1.5	-	-	-	-	-	-	-
Brinjal (R)	35	0.1	0.50	1.50	30	-	-	-	-
Kaon (R)	25	12	-	-	-	-	-	-	-
Watermelon (R)	30	0.8	-	-	50	20	-	-	-
Radish (R)	45	8.0	-	1.00	60	20	-	-	-

Source: MPO, BRRI, BARI, BARC, DAE.

R = rainfed

IR = irrigated

4.4 Crop Budgets

Using the prices, yields and physical inputs discussed earlier crop budgets at 1991 economic values were prepared for each of the 27 SWA Planning Units. The budgets include the value of crop residues which are utilised for fuel and livestock feed. Data on livestock management and production are less detailed than for crops and therefore the fodder value has been taken as representing the value of livestock. Budgets at economic values were used in RAOM generated analyses and also in the analysis of selected pre-feasibility studies for the seven projects presented in the Second Interim Report (November 1992) and the Chenchuri Beel and Gorai Augmentation Project Studies in this Final Report.

Complete sets of the crop budgets are given in Appendix F.

Appendix G shows the rainfed and irrigated total crop gross margins at 1991 economic values for each PU by flood class. These were the values used in the RAOM generated regional study analyses.

5 NUTRITIONAL BALANCES

5.1 Scope

As noted in Section 3.6 the availability of selected crop production nutrition components has been taken as a key indicator of the benefits to be expected from the SWA water management development proposals. The base data from which the results were derived for the assessments was given in Section 3.6. The present, 1991, situation is presented below in terms of output of food energy, carbohydrate, protein and fat from crops. The effects of different development options considered have been evaluated in terms of the changes in gross food energy production.

The scale and nature of the data available and the regional scale of the study mean that the results of the assessments and the accuracy of present availability of the nutrients must be considered only indicative.

The figures represent production and not nutrient consumption or availability to the consumers.

The results are for gross production with no allowances for losses between the field and the consumer nor for imports into each Planning Unit - the base unit used in the study analyses. The indicator is relevant to changes brought about by the proposed water management based plan and does not take into account developments in other fields which may be stimulated by the Plan but are not part of it. The figures should not be taken as direct indicators of changes in consumption though they are obviously indirectly related. They also do not reflect differences in consumption patterns within communities or between family.

The projection of population growth rate assumed a moderate decline of 1.0% per annum in 2010, resulting in a population of 34.6 million in the year 2010, and average annual growth rate of about 1.502 over the period from 1991-2010. Population growth was the only factor in the projection of proportional growth in future food demand.

5.2 Present Nutrient Output

The most reliable data available were of crop production. The estimate of nutrients available throughout the study area therefore has been based on this. The contribution of livestock and fish were not included though their importance is clearly recognised.

It is recommended that all three sources should be covered in feasibility studies which are expected to follow from this study's proposals. At that stage the resources available to collect and analyse more precise, and area specific data are expected to be given.

Table 5.1 summarises the estimated gross output in terms of units available each day for each person by PU in SWA. For the two SWA Regions the figures are summarised below:

	Food energy kcal	Carbohydrate gm	Protein gm	Fat gm
Each person/day				
SWR	2092	422	47.7	11.2
SCR	2142	444	46.7	9.8
SWA	2118	433	47.2	10.6

(Note: From crop production only and before losses from produces to consumers).

The figures in Table 5.2 conceal the significant differences between PUs, which are given in Table 5.1 and by crop and growing conditions in Appendix H. The least and most

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TABLE 5.1
Present Gross Output of Selected Nutrition Indicators from Cropping in the Southwest Area

PU	Nutrient Composition			
	Energy (kcal/person/day)	Protein (gm/person/day)	Carbohydrate (gm/person/day)	Fat (gm/person/day)
SW 1	2443	56.38	488.49	9.07
SW 2	3627	75.78	734.16	10.37
SW 3	1779	44.30	348.52	9.52
SW 4	2213	50.90	444.66	10.98
SW 5	2048	49.53	400.66	10.59
SW 6	1997	47.86	393.92	9.70
SW 7	1923	45.78	381.34	10.96
SW 8	2987	65.51	618.85	14.75
SW 9	2329	51.95	488.41	11.66
SW 10	1593	38.08	313.01	15.04
SW 11	2207	46.93	462.47	12.22
SW 12	641	14.77	129.59	5.10
SW 13	1732	41.59	339.78	15.19
SW 14	1762	37.89	362.68	12.16
SWR	2092	47.67	421.89	11.24
SC 1	1836	45.89	347.64	11.24
SC 2	2107	49.37	413.53	12.64
SC 3	2009	41.07	396.60	13.48
SC 4	1824	40.74	366.03	9.89
SC 5	2391	46.99	505.97	9.69
SC 6	1965	44.74	390.52	11.62
SC 7	2282	46.25	488.36	11.93
SC 8	1953	42.52	413.40	7.95
SC 9	2185	46.63	464.38	7.83
SC 10	2342	52.41	497.12	8.70
SC 11	2563	53.45	548.88	8.67
SC 12	1813	40.11	386.60	8.09
SC 13	2630	57.42	556.19	5.76
SCR	2142	46.74	444.25	9.80
SWA	2117	47.21	433.07	10.52

sh\tab5-1

productive PUs in these terms are SW12 and SW2 respectively. Table 5.4 (Section 5.3) shows the position in terms of gross food energy production deficits in 1991 derived from production estimates discussed in Volume 6, Land Resources, Agriculture and Fisheries and population figures in Volume 9. These figures include output from culture fisheries - excluding shrimp which is primarily exported from the area and not locally consumed - and crop production.

The data indicate that only four PUs, SW1, SW2, SW8 and SC11 have deficits of less than 10% of requirements of which two, SW2 and SW8, have no deficits. The range of the deficits in 1991 are illustrated in Table 5.2 and later in Figure 5.1.

TABLE 5.2

Summary of Food Deficient by Planning Units

Deficit	Planning Unit		Planning Units	
	No	%	South West	South Central
Under 10%	4	15	1,2,8	11
10 - 20%	2	7	4	5
21 - 30%	7	26	5,6,9	7,9,10,13
31 - 40%	4	15	3	2,3,6
41 - 50%	3	11	-	1,8,12
Over 50%	7	26	7,10,11,12,13,14	4
	27 ⁽¹⁾	100		

Source: Consultants' estimates.

⁽¹⁾ Excluding PU SW15, Sundarbans.

Data for each PU is given in Appendix H that identifies the gross quantities of food energy, carbohydrate, protein and fat produced in 1991 by crops throughout SWA. The data are broken down by crop, flood depth category of land and whether from rainfed or irrigated areas.

5.3 Future Gross Production of Nutrients

The forecast changes in gross production of food energy from crops and capture fisheries (excluding shrimp ref Section 5.1) are given in detail, by PU in Table 5.3 and illustrated in Figures 5.1 to 5.4. The cases covered are described below. In each case the data are given for the present, 1991 and 1995, 2000, 2005, 2010 and 2020.

Option 1. Base case.

No Regional Plan option is implemented. However, groundwater is exploited to its sustainable maximum Figure 5.1.

Option 2. FCD and surface irrigation developed without any augmentation of the flows in the Gorai river Figure 5.2.

TABLE 5.3
Gross Food Energy Balances in SWA with Four Water Resource Management Development Options

Option 1 : No Development

Option 2 : FCD / I only

PU	Shortages (1)					Shortages					
	1991	1995	2000	2010	2020	1991	1995	2000	2005	2010	2020
SW 1	8%	14%	19%	27%	35%	8%	14%	19%	23%	27%	35%
SW 2	0%	0%	0%	4%	13%	0%	0%	0%	2%	4%	13%
SW 3	34%	34%	33%	35%	42%	34%	33%	30%	32%	35%	41%
SW 4	17%	23%	29%	37%	43%	17%	23%	29%	33%	37%	43%
SW 5	28%	28%	28%	31%	38%	28%	28%	23%	26%	29%	36%
SW 6	30%	29%	28%	30%	37%	30%	29%	28%	29%	30%	37%
SW 7	53%	51%	48%	48%	53%	53%	49%	40%	41%	42%	47%
SW 8	0%	0%	7%	18%	25%	0%	0%	7%	12%	18%	25%
SW 9	29%	34%	40%	46%	51%	29%	34%	40%	43%	46%	51%
SW 10	53%	54%	55%	57%	62%	53%	51%	52%	53%	54%	59%
SW 11	70%	72%	74%	77%	79%	70%	72%	74%	76%	77%	79%
SW 12	92%	92%	93%	94%	94%	92%	92%	93%	93%	94%	94%
SW 13	59%	60%	60%	62%	66%	59%	52%	52%	54%	56%	60%
SW 14	70%	73%	75%	78%	80%	70%	71%	73%	75%	76%	78%
Total	33%	36%	40%	45%	50%	33%	35%	37%	40%	43%	49%
SC 1	41%	34%	26%	23%	31%	41%	24%	5%	8%	12%	16%
SC 2	32%	26%	18%	16%	24%	32%	26%	18%	17%	16%	24%
SC 3	39%	38%	36%	37%	43%	39%	38%	12%	15%	18%	25%
SC 4	60%	57%	55%	56%	60%	60%	57%	55%	54%	53%	57%
SC 5	17%	21%	25%	31%	38%	17%	21%	25%	24%	23%	30%
SC 6	38%	42%	46%	51%	56%	38%	42%	13%	17%	22%	28%
SC 7	25%	29%	33%	39%	45%	25%	30%	19%	17%	14%	23%
SC 8	43%	47%	51%	56%	60%	43%	47%	38%	23%	7%	15%
SC 9	28%	33%	39%	46%	51%	28%	33%	39%	42%	45%	50%
SC 10	28%	33%	38%	44%	50%	28%	33%	36%	39%	43%	49%
SC 11	9%	15%	21%	29%	36%	9%	15%	21%	24%	26%	33%
SC 12	41%	45%	49%	54%	59%	41%	45%	49%	51%	54%	58%
SC 13	30%	35%	41%	47%	52%	30%	35%	41%	43%	46%	51%
Total	34%	35%	37%	40%	46%	34%	34%	27%	25%	24%	30%

Option 3 : FCD / I + Gorai Augmentation

Option 4 : FCD/I + Augmentation & Ganges Barrage

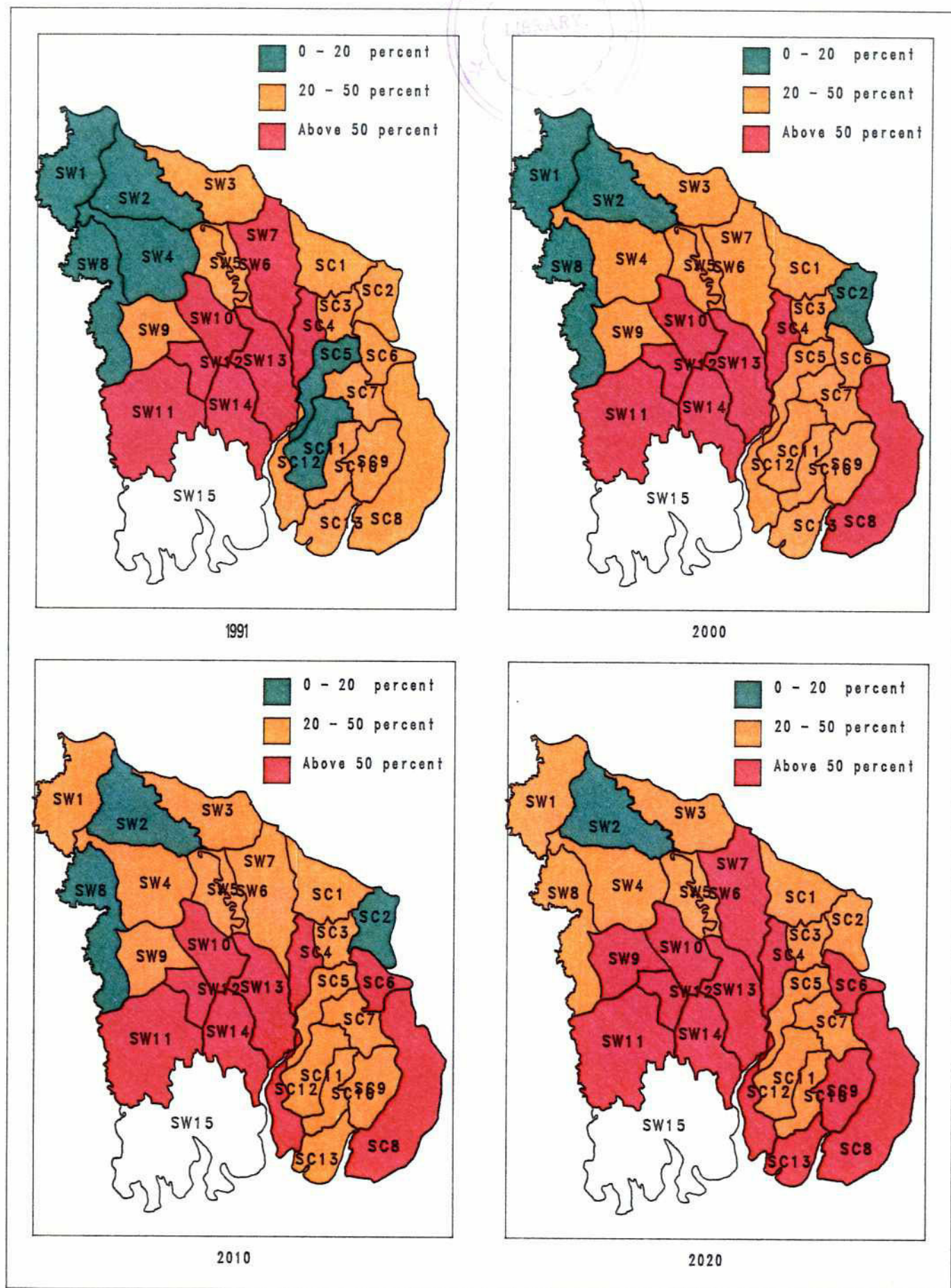
PU	Shortages						Shortages					
	1991	1995	2000	2005	2010	2020	1991	1995	2000	2005	2010	2020
SW 1	8%	19%	19%	24%	27%	35%	8%	19%	19%	24%	27%	0%
SW 2	0%	0%	0%	0%	3%	12%	0%	0%	0%	0%	0%	4%
SW 3	34%	29%	30%	32%	35%	41%	34%	30%	31%	0%	0%	0%
SW 4	17%	26%	26%	20%	24%	31%	17%	26%	26%	20%	0%	0%
SW 5	28%	0%	0%	0%	0%	0%	28%	0%	0%	0%	0%	0%
SW 6	30%	21%	17%	0%	0%	1%	30%	21%	17%	0%	0%	1%
SW 7	53%	38%	17%	19%	23%	31%	53%	40%	19%	24%	29%	31%
SW 8	0%	7%	7%	19%	18%	25%	0%	7%	7%	13%	0%	0%
SW 9	29%	40%	40%	44%	46%	51%	29%	40%	40%	44%	21%	29%
SW 10	53%	48%	48%	18%	22%	30%	53%	48%	48%	18%	26%	30%
SW 11	70%	74%	74%	76%	77%	79%	70%	74%	74%	76%	77%	79%
SW 12	92%	93%	93%	93%	93%	94%	92%	93%	93%	93%	94%	94%
SW 13	59%	52%	52%	53%	56%	60%	59%	52%	52%	54%	56%	60%
SW 14	70%	73%	73%	75%	76%	79%	70%	73%	73%	75%	76%	79%
Total	33%	34%	32%	33%	36%	42%	33%	35%	33%	29%	24%	25%
SC 1	41%	5%	5%	8%	12%	16%	41%	5%	5%	8%	12%	16%
SC 2	32%	18%	18%	12%	16%	24%	32%	18%	18%	12%	16%	24%
SC 3	39%	12%	12%	17%	18%	25%	39%	12%	12%	17%	18%	25%
SC 4	60%	55%	55%	53%	53%	57%	60%	55%	55%	53%	52%	57%
SC 5	17%	25%	25%	28%	23%	30%	17%	25%	25%	28%	23%	30%
SC 6	38%	13%	13%	18%	22%	28%	38%	12%	12%	17%	21%	27%
SC 7	25%	19%	19%	11%	14%	22%	25%	19%	19%	11%	14%	23%
SC 8	43%	38%	38%	2%	7%	15%	43%	39%	39%	2%	7%	15%
SC 9	28%	39%	39%	43%	45%	50%	28%	39%	39%	43%	45%	50%
SC 10	28%	36%	36%	40%	43%	49%	28%	36%	36%	40%	43%	49%
SC 11	9%	21%	21%	25%	27%	33%	9%	21%	21%	25%	26%	33%
SC 12	41%	49%	49%	52%	54%	58%	41%	49%	49%	52%	53%	58%
SC 13	30%	41%	41%	45%	46%	51%	30%	41%	41%	45%	46%	51%
Total	34%	27%	27%	21%	24%	30%	34%	27%	27%	21%	24%	30%

Source : Consultants estimates

[wkin|tab5-3]

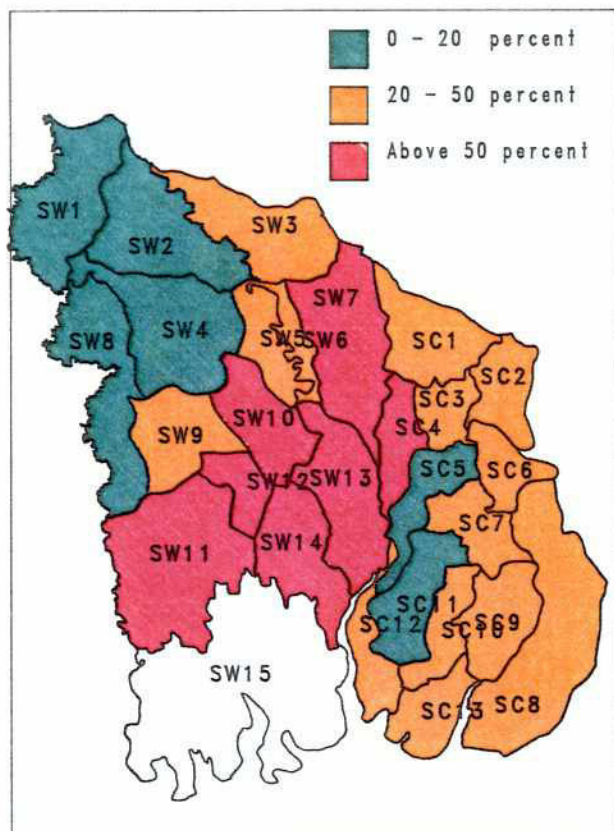
(1) No calculation for 2005 in Option 1

Figure 5.1

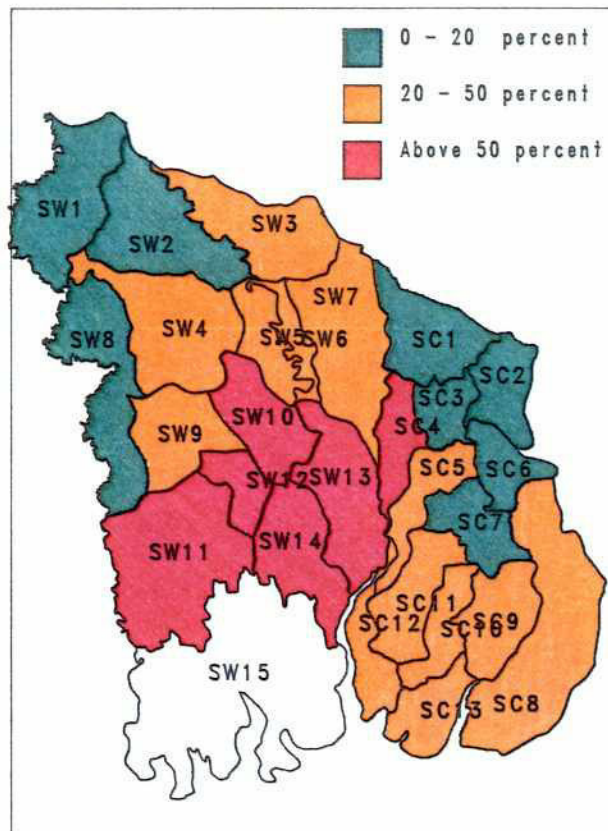


Food Energy Shortage (No Development)

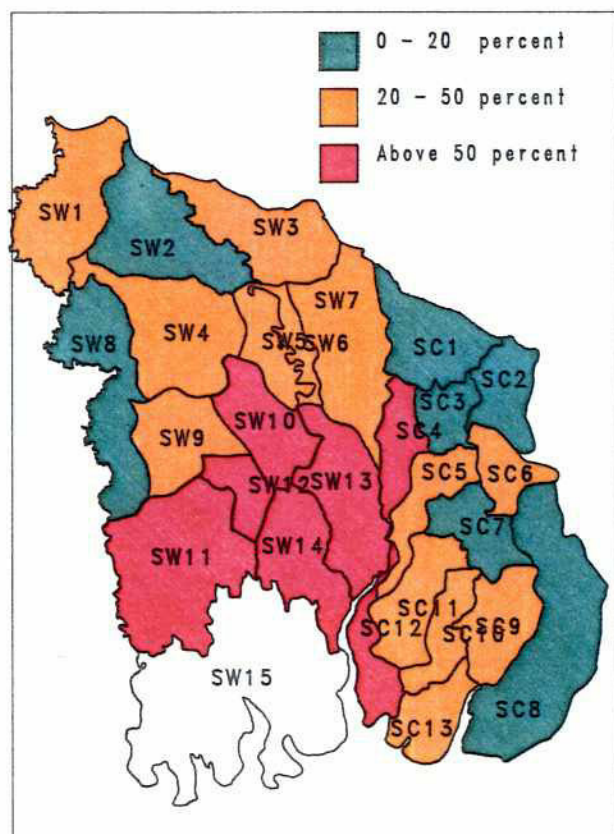
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Figure 5.2



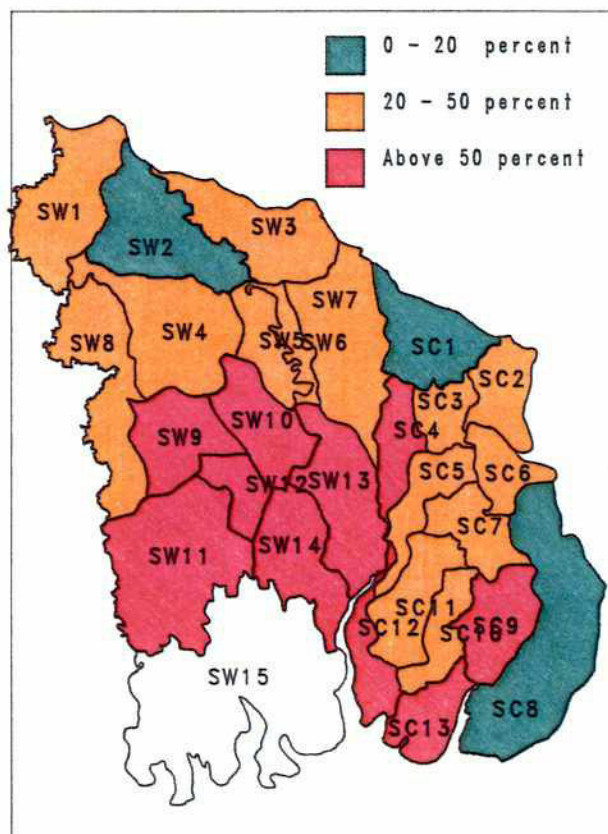
1991



2000



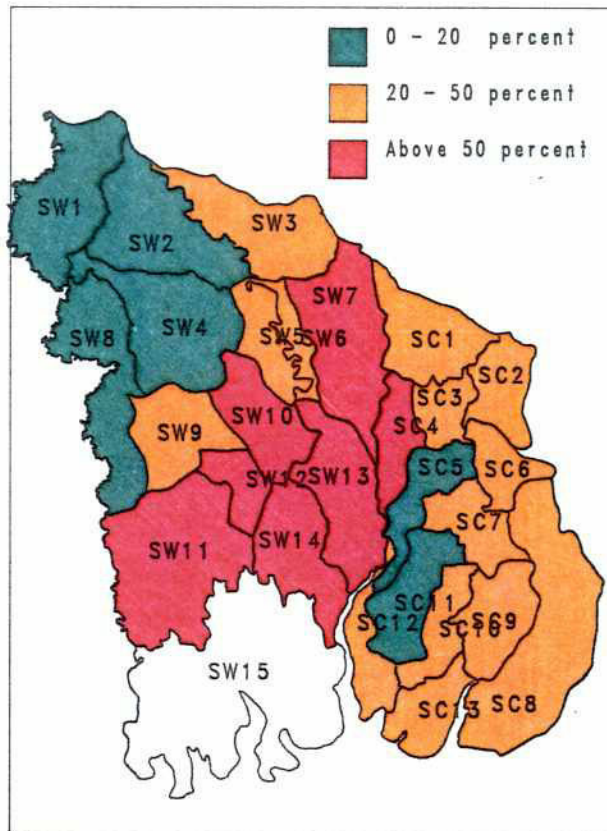
2010



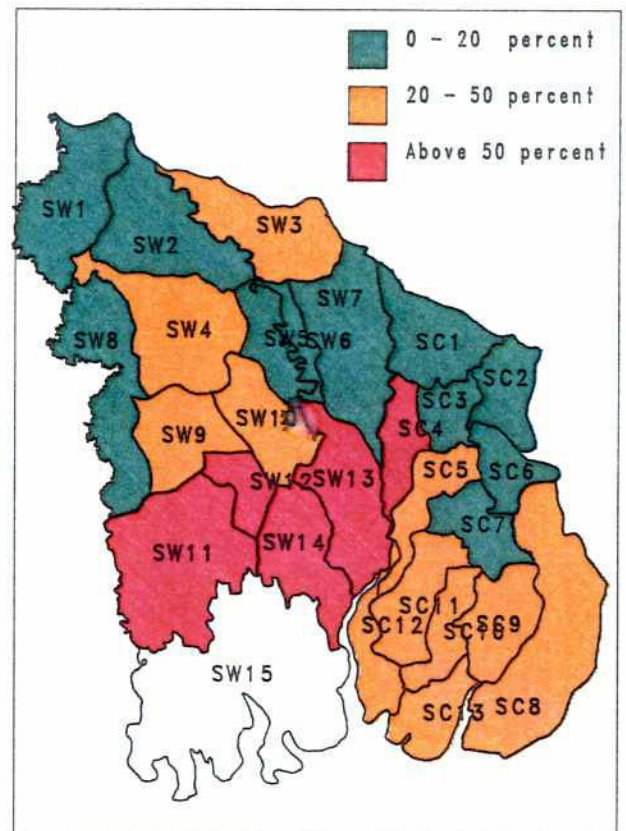
2020

Food Energy Shortage (Devlopement Without Augmentation)

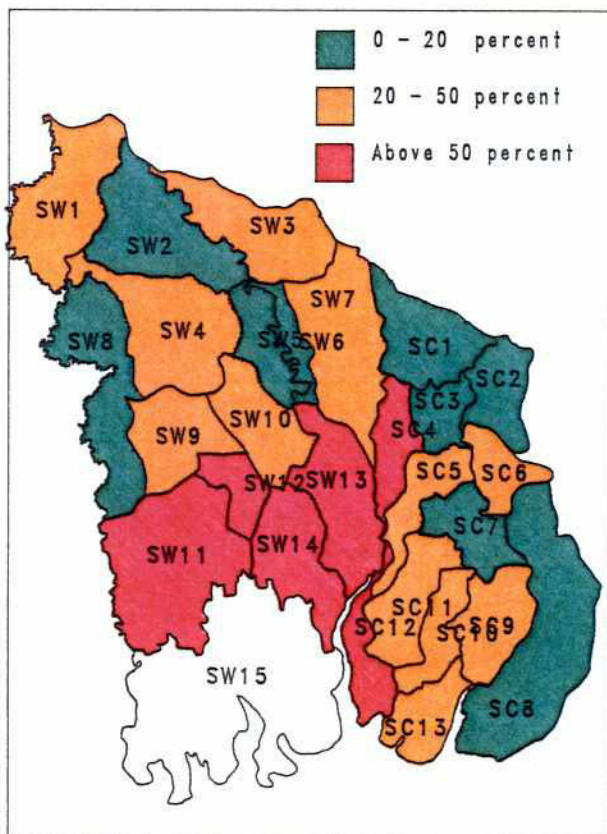
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Figure 5.3



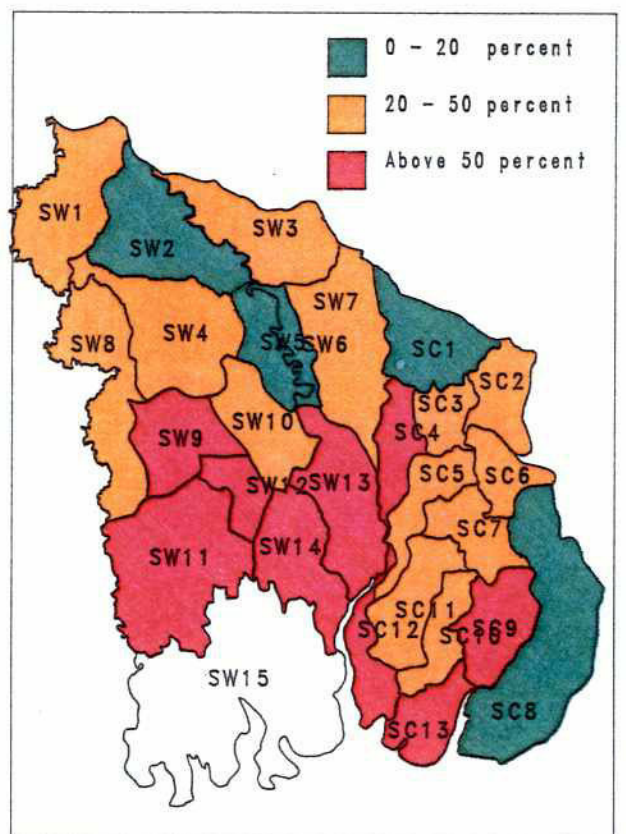
1991



2000



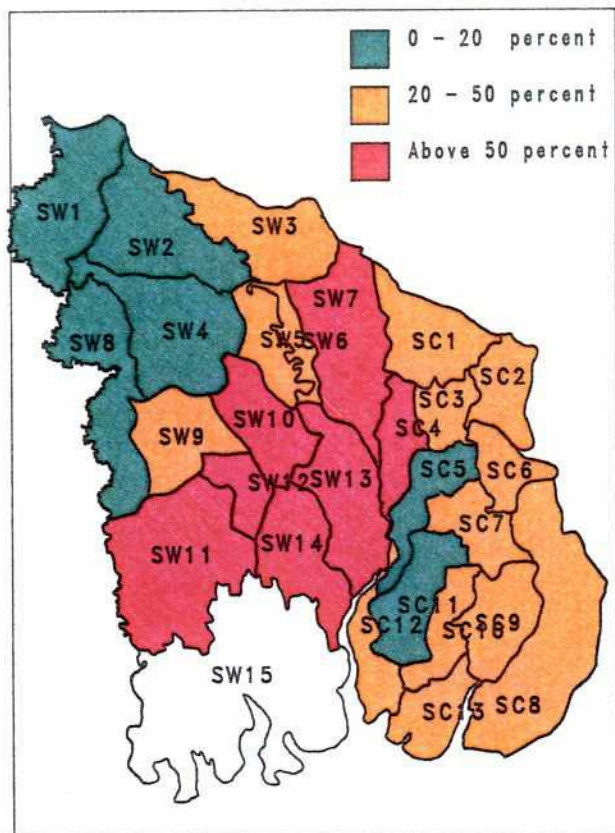
2010



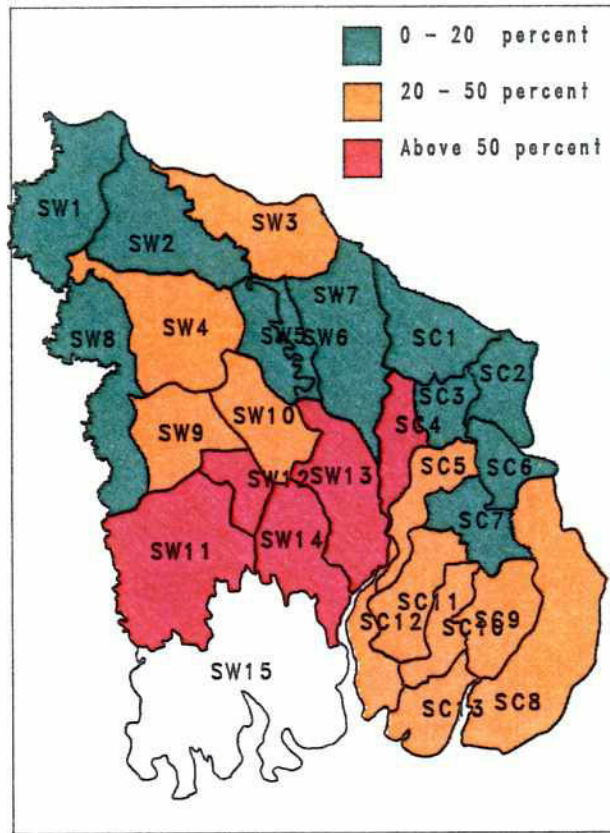
2020

Food Energy Shortage (Augmentation No Barrage)

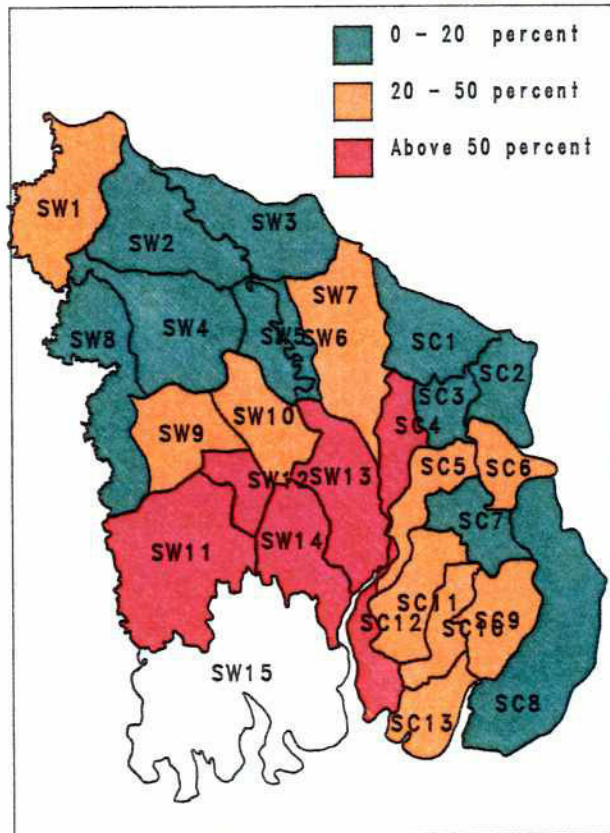
53
Figure 5.4



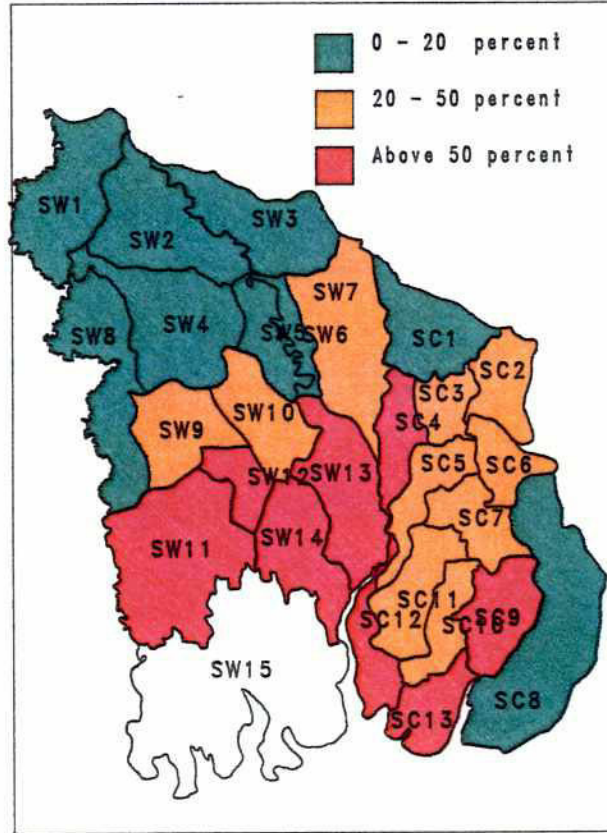
1991



2000



2010



2020

Food Energy Shortage (Ganges Barrage Development)

Option 3. FCD and surface irrigation with augmentation of Gorai river flows which will increase the area of surface irrigation and improve conditions along the Gorai Figure 5.3.

Option 4. As case 3 but with the addition of a barrage on the Ganges river to improve flows along the Gorai. This is the development case recommended by the SWA study. The barrage would be constructed between 2001 and 2005 Figure 5.4.

These four main development options are described in Volume 5, RAOM and outlined in more detail in Chapter 7.

Table 5.4 summarises the predicted deficits under the four development options, including the non-development case. The number of PUs with deficits of less than 10% at the end of each five year period to 2010, and at 2020 are given in Table 5.5.

TABLE 5.4
Summary of Food Energy Deficits for the Four Main
Regional Water Resources Development Options

Case (1)	1991	1995	2000	2005 (2)	2010	2020
1. No development						
SWR	33	36	40	na	45	50
SCR	34	35	37	na	40	46
2. FCD/I only						
SWR	33	35	37	40	43	49
SCR	34	34	27	25	24	30
3. FCD/I + Gorai Augmentation						
SWR	33	34	32	33	36	42
SCR	34	27	27	21	24	30
4. Case 3 plus Ganges Barrage						
SWR	33	35	33	29	24	25
SCR	34	27	27	21	24	30

Source: Consultants estimates (Volume 5, RAOM)

(1) See text

(2) Case 1 no run for 2005.

TABLE 5.5

Number of SWA Planning Units with Food Energy Deficits of less than Ten Percent under Different Regional Water Resources Development Options

Case (1)	1991	1995	2000	2005 (2)	2010	2020
1. No development						
SWR	3	2	2	na	1	-
SCR	1	+	+	na	-	-
2. FCD/I only						
SWR	3	2	2	1	1	-
SCR	1	-	1	1	1	-
3. FCD/I + Gorai Augmentation						
SWR	3	3	3	3	3	2
SCR	1	1	1	2	1	-
4. Case 3 + Ganges Barrage						
SWR	3	3	3	4	6	7
SCR	1	1	1	2	1	-

Source: Consultants estimates (Volume 5, RAOM)

(1) See text

(2) Case 1 no run for 2005.

The tables clearly show that the chosen development option which includes the Gorai Augmentation Project (ref Volume 12) and the Ganges Barrage will be the most beneficial. Details by PU are given in Appendix I.

6 POPULATION

6.1 Background

The effect of population growth in Bangladesh has been detrimental to its economic development and human welfare. With a density of population that is among the highest in the world (740/km²), its per capita income (GNP) is one of the lowest (\$189.6). Various NGOs such as CARITAS(NFPP), BRAC, PROSHIKA etc. are working for the Health and Family Planning (HFP) sector in the Southwest Area as elsewhere in Bangladesh. In collaboration with the Ministry of Health and Family Welfare, these NGOs have achieved some success, reducing the national annual growth rate from 2.48% in 1974 to 2.026% in 1991 and forecasts by the Population Development and Evaluation Unit (PDEU) expect the trend to continue.

Population data and characteristics for the SWA study were from a mixture of preliminary, adjusted 1991 Population Census results and earlier studies including the 1981 census and the 1983/84 census of Agriculture.

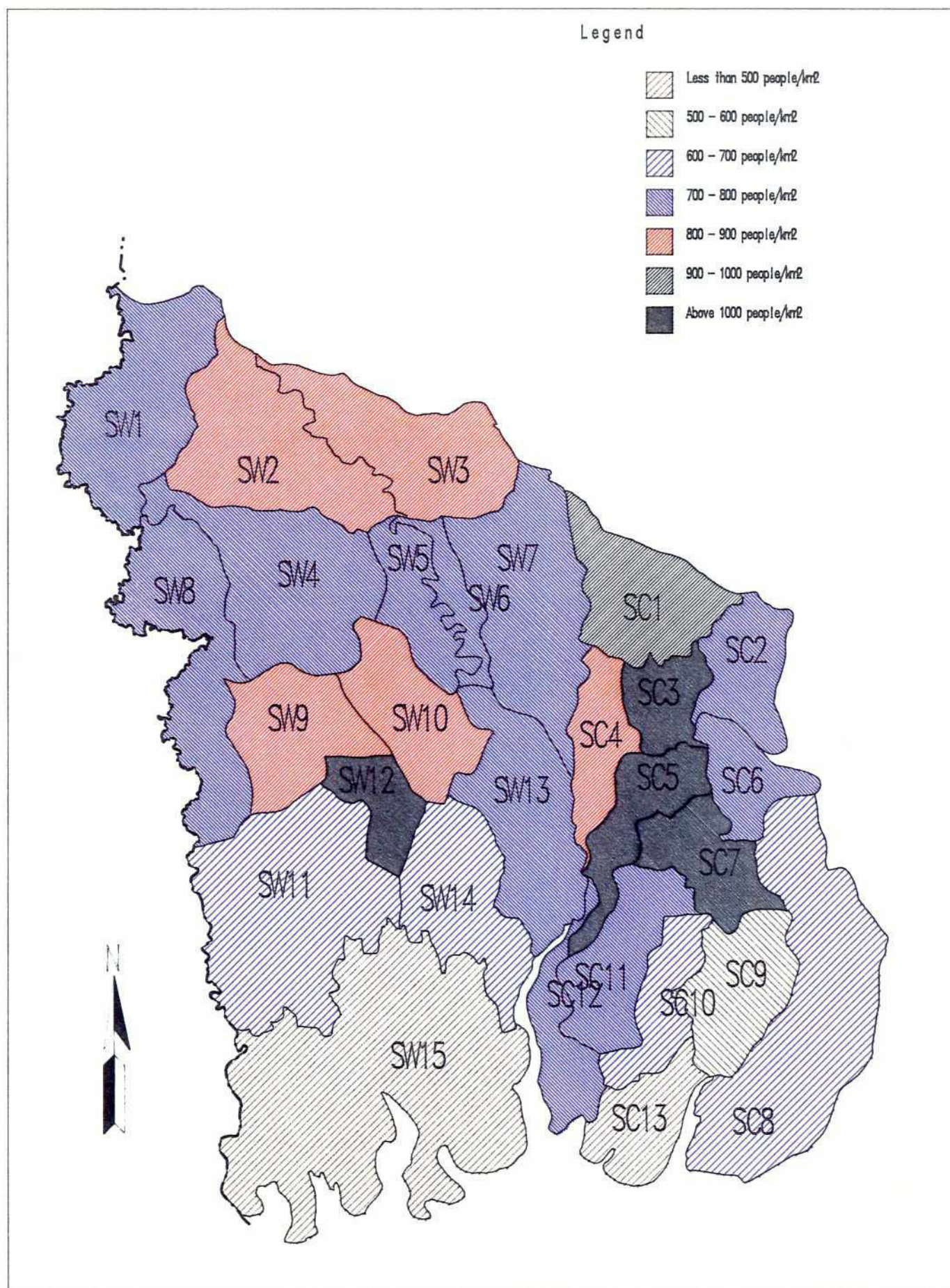
6.2 Present Population

Selected population indicators for SWA are given in Table 6.1. Key population data are presented in Table 6.2 by the Planning Units that have been used as the framework for the SWA Project investigations. The PU figures were converted from the Thana level data published by BBS.

Preliminary 1991 Census data found the SWA population to be 26.1M, almost one quarter of the national total of 109.9M.

Figure 6.1 shows the population density (1991) by Planning Units.

Figure 6.1



POPULATION DENSITY 1991

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TABLE 6.1
Selected Population Indicators 1991

Indicator	Selected Unit	Southwest Region	South Central Region	Southwest Area
Population	#m	16.72	9.39	26.11
urban	%	11	5	9
rural	%	89	95	91
Male/Female	ratio	1.06	1.03	1.05
Households	#m	2.97	1.75	4.72
urban		0.34	0.07	0.41
rural		2.63	1.68	4.31
Household size	pp	5.64	5.35	5.53
urban		5.45	5.99	5.55
rural (1)		5.51	5.32	5.44
Literacy	%	na	na	24.8
Density				
Total	pers/km ²			
With Sundarbans		674	757	702
Without Sundarbans		784	757	774
Rural		599	722	640
With Sundarbans		695	722	705
Without Sundarbans				
Dependency ratio (2)		2.54	2.35	2.41
Households	#m	2.97	1.75	4.72
landless	%	15	16	15
farming		21	22	21
marginal	%	24	23	24
small	%	24	20	23
medium	%	8	6	8
large	%	7	12	9
fishing (3)	%			

Source: 1991 Statistical Yearbook of Bangladesh, BBS Supplement No 1
Preliminary Report on Population Census 1991, June 1992, BBS.

- (1) Excluding the Sundarbans for which household data were not available.
- (2) Dependents = 0-9 and 55+ years of age
- (3) Data for fishing households uncertain. Estimate taken from BBS data for landless households.

Sixty four percent of the population were found in SWR. In 1991 population density in SWA 702 pp/km² was compared with 820 pp/km² for Bangladesh as a whole. If the sparsely peopled Sundarbans are excluded overall density rises to 774 pp/km². There were significant variations in density within SWA. Planning Unit SW12, which includes most of

TABLE 6.2
Population Data (1991) in Planning Unit (PU)

Planning Unit	PU AREA km ² (a)	RURALHH (b)	RURALPOP (c)	URBANHH (d)	URBANPOP (e)	TOTALHH (f)	TOTALPOP (g)	MALES (h)	FEMALES (i)	Person/HH (k=g÷f)	Total Densit (No/km ²)	Rural Density (No/km ²)
SW1	1807	238,856	1,297,108	11,665	61,714	250,518	1,358,819	696,207	662,612	5.42	752.02	717.87
SW2	1892	266,679	1,511,950	26,270	148,874	292,944	1,660,820	863,360	797,460	5.67	877.94	799.24
SW3	1653	218,825	1,227,292	15,905	94,797	234,726	1,322,084	681,263	640,822	5.63	800.03	742.67
SW4	2047	238,296	1,368,582	39,340	217,585	277,633	1,586,163	816,137	770,025	5.71	774.92	668.62
SW5	719	91,664	501,497	2,406	13,953	94,068	515,448	261,061	254,387	5.48	717.22	697.81
SW6	415	56,444	313,246	298	1,855	56,740	315,099	158,899	156,201	5.55	760.06	755.59
SW7	1950	281,425	1,511,574	7,186	44,133	288,605	1,555,702	786,457	769,245	5.39	797.87	775.24
SW8	1815	219,460	1,226,457	14,142	77,339	233,599	1,303,792	666,748	637,068	5.58	718.34	675.73
SW9	1163	176,394	951,659	5,670	30,998	182,060	982,653	503,858	478,796	5.40	844.97	818.32
SW10	1094	112,626	632,583	49,299	256,521	161,923	889,102	460,003	429,099	5.49	812.84	578.32
SW11	2710	303,003	1,679,928	4,902	27,057	307,897	1,706,977	866,801	840,190	5.54	629.93	619.94
SW12	585	53,358	289,977	128,915	661,391	182,272	951,366	509,502	441,865	5.22	1625.04	495.31
SW13	1626	215,472	1,147,009	14,672	120,553	230,139	1,267,558	624,536	606,011	5.51	779.36	705.24
SW14	1342	154,916	811,571	19,536	97,425	174,448	908,993	468,990	440,003	5.21	677.27	604.68
SW15	4010	0	402,756	0	0	0	402,756	206,492	196,264	0.00	100.44	100.44
Sub-Total	24,827	2,627,418	14,873,191	340,206	1,854,193	2,967,571	16,727,332	8,570,312	8,120,046	5.64	673.76	599.08
SC1	1276	209,391	1,101,406	10,920	58,744	220,308	1,160,146	585,048	575,098	5.27	909.10	863.07
SC2	851	116,692	601,153	0	0	116,692	601,153	304,619	296,534	5.15	706.58	706.58
SC3	543	103,775	545,171	1,661	8,925	105,433	554,094	281,227	272,867	5.26	1019.68	1003.26
SC4	713	117,977	606,225	1,247	6,695	119,221	612,917	309,889	303,028	5.14	859.08	849.70
SC5	817	156,000	804,184	1,997	15,589	157,992	819,768	412,900	406,869	5.19	1002.89	983.82
SC6	712	91,458	483,028	5,759	37,126	97,215	520,152	270,526	249,626	5.35	730.50	678.36
SC7	823	126,952	691,915	23,405	152,295	150,356	844,208	435,370	408,838	5.61	1025.26	840.30
SC8	2680	302,849	1,676,354	12,952	76,516	315,795	1,752,863	902,632	850,231	5.55	654.07	625.52
SC9	867	87,385	489,545	4,214	23,769	91,597	513,312	257,926	255,386	5.60	591.98	564.57
SC10	677	73,221	393,746	5,978	32,513	79,198	426,258	214,128	212,130	5.38	629.36	581.36
SC11	1053	156,323	811,549	4,619	25,023	160,937	836,567	419,028	417,540	5.20	794.48	770.72
SC12	592	79,395	418,823	1,413	6,888	80,808	425,709	215,143	210,566	5.27	718.71	707.09
SC13	783	58,350	319,139	0	0	58,350	319,139	161,697	157,442	5.47	407.76	407.76
Sub-Total	12,389	1,679,770	8,942,238	74,164	444,082	1,753,902	9,386,287	4,770,133	4,616,154	5.35	757.63	721.79
PU Total	37,216	4,307,188	23,815,429	414,370	2,298,275	4,721,473	26,113,619	13,340,445	12,736,200	5.53	701.68	639.93
Thana Total		4,383,515	23,824,600	416,639	2,311,988	4,800,058	26,136,494	13,350,600	12,748,921			

Source : Derived from 1981 and 1991 Population Censuses, BBS.

Note : The discrepancy between PU total and Thana figures arises from adjustment of data to study areas.

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Khulna municipality, has the highest density, 1625 pp/km². SC13 the lowest, 408 pp/km² except for SW15, the Sundarbans Forest Reserve which has a small, supposedly transient population of woodcutters and fishermen and a density of about 100 pp/km².

About 91% of SWA's people live in the rural areas. The rural population is lower in the SWR (89%), in which the city of Khulna is situated than, in the less urbanised SCR (95%).

Final adjusted age group figures from the 1991 Census were not available for all SWA at the time of writing. Final 1991 data for five southern districts, however show that 30% (range 28-32%) are under 10 years of age a further 58% (55-61%) between 10 and 49 years and 12% (10-13%) over 49 years.

The literacy rate of the over five year old population varies from 17.73% in Bhola to 10.73% in Jhalakati according to the latest published BBS figures. Typically women have a much lower literacy rate than men, 11-27% compared to 22-40%.

The average male : female ratio in SWA is 105 in SWR, 102 in SCR and at 104 in the whole area it is slightly lower than the National figure of 106.

The average household size in the study area was 5.53 persons in 1991. In the South Central Region it was 5.35, and in the South West it stood at 5.64. Out of the total number of households in the study area, the distribution of rural and urban households were 91% and 98% respectively. The Sundarbans (SW15) had no permanent inhabitants, and therefore, no permanent households. Its transient dwellers were however, estimated at 402,756 in number, all of whom were considered to be rural. The Sundarbans itself has no urban centres.

Small, medium, and large farmers respectively accounted for 68%, 26%, and 6% of total farm households. Barisal (SC6) had the highest proportion (78%) of small-farm households, and the lowest proportion (2.6%) of large farm households.

6.3 Land Ownership

The latest (1983/84) BBS data showed that one quarter of households in SWA were landless; with less than 0.2 ha; and 76% owned land with an average net cultivable area of 0.88 ha, which by 1991 had fallen to about 0.7 ha. Sixty percent of farm households had less than 0.5 ha and only 10% had occurs to more than two hectares. The BBS data showed farm holding to be grouped as follows:

	Marginal (0.21-0.50 ha)	Small (0.51-1.00 ha)	Medium (1.01-2.00 ha)	Large (< 2.00 ha)	All Holdings
SWR %	27	31	31	11	
Av NCA ha		0.32	1.59	4.35	1.00
SCR %	31	32	28	9	
Av NCA ha		0.30	1.54	4.43	0.78
SWA %	28	32	30	10	
Av NCA ha		0.31	1.57	4.39	0.88
National %		70	25	5	
Av NCA ha		0.38	1.67	4.71	0.92

Three categories of rural land tenure are recognised; owner operators, tenants and owners-cum-tenants. National figures show 63% of holdings to be owner operated, one percent tenanted and 36% farmed by owner-cum-tenants. In SWA the division between the categories was: owner operator 59-70%, owner-cum-tenants 29-41% and tenants only exceeded one percent in Kushtia District.

Most tenancies are under a share cropping system. Government regulations covering tenancy conditions set out the division of output as: 33% to the landowner, 33% to the share cropper who provides labour and draught power and the balance to whoever provides the other production inputs. In practice local customary arrangements often apply and may be altered at short notice even though legislation provides that unless good reason can be shown agreements should not change for a period of five years. In SWA two main share cropping arrangements are found:

	Labour Draught power %	Other Inputs %	Output %
(1) Owner	-	50	50
Sharecropper	100	50	50
(2) Owner	-	-	33
Sharecropper	100	100	67

Seasonal or annual cash rents also occur but on a small scale and mainly in the Southernmost parts of SWA.

6.4 Employment

The economically active population in the project area constituted 96.2% males and 3.8% females in 1981. But a growing trend has been the gradual decline in the proportion of males in the active labourforce. In 1985 and 1986, the proportion of males in the economically active category was 91.52% and 90.0% respectively. The national figures are similar to the trend in the project area. For the country, in the years 1981, 1985 and 1986, women's participation rates were 5.7%, 9.2%, and 10.5% respectively. the increasing proportions of females joining the economically active category shows a change in the social structure.

In the project area, out of a total population of 26.1 million, 17 million (59.8%) were classified in the working population, while the rest totaling 9.1 million (40.2%) in the non-working group. Narail district, covered by the planning unit SW10, had the highest proportion of working population (74.6%) with an economic dependency ratio of 34- the best in the region. The lowest proportion of working population (53.18%) was in the Bhola district of the Planning Unit (PU) SC8. It also portrayed the highest economic dependency ratio of 88.

As elsewhere in Bangladesh unemployment and underemployment occur on very considerable scales in the study area, in both the rural areas and the urban centres. Sixty-five percent of the total labourforce of the country is agrarian. For the majority of the labourforce, underemployment is a seasonal and temporary phenomenon. Labour migration occurs in large numbers intra-regionally to wherever harvesting and planting demands additional labourforce.

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The population active in the labourforce is conventionally held to be within the age range of 14-65 years. In advanced economies, mostly those that are predominantly industrial in nature, this age classification is appropriate, and the reasons are twofold: a minimum level of literacy and/or skill delaying job entry, and a capital-intensive work place delaying job retirement. But in the case of a primarily agrarian underdeveloped economy such as that of Bangladesh children begin to work from an early age (8-10 years). The labour-intensive nature of agricultural work, on the other hand, becomes too strenuous after 55-60 years of age. Therefore, the working population in our study constitutes the population within the ages 10-54 years. The dependency ratios have also been calculated based on the same rationale. The economic dependency ratio for the study area is 67.12%.

6.5 Population Growth

The 1981 - 1991 intercensal population annual growth rate in SWA was 1.89%, lower than the national rate of 2.03% pa. Provisional figures indicate that the rural urban drift was lower in the 1980s than during the previous two decades. In SWA the urban population grew at 4.2% pa between 1981 and 1991 compared to 1.58% pa in the rural areas. The national and SWA figures show there to be positive success in curbing population growth through the countrywide family planning campaign promoted actively by government during the past decades.

The Population Development and Evaluation Unit (PDEU) of the Planning Commission forecast continued progress and expect the growth rate to fall to one percent by 2009. The PDEU's forecasts and the lower than expected 1981 - 1991 growth rate result in the following, possibly optimistic, projections for SWA which indicate that the population will be one third higher by 2010:

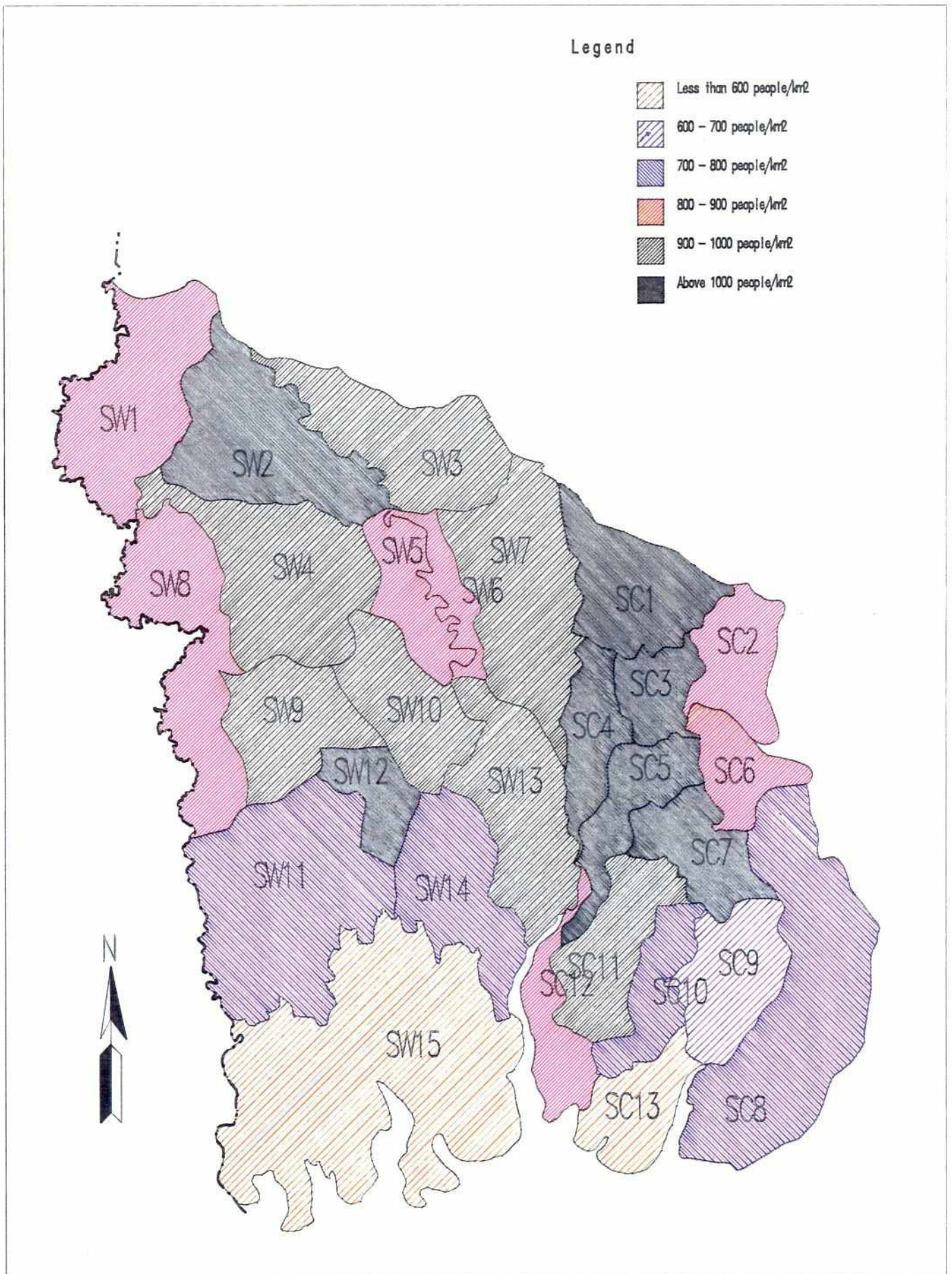
	1991	1995	2000	2005	2010
million SWA	26.11	28.28	30.77	32.98	34.66
SWR	16.72	18.12	19.71	21.13	22.20
SCR	9.39	10.17	11.06	11.86	12.46
Density pp/km ²	702	760	825	885	930

Tables 6.3 to 6.6 respectively give the PU populations in 1995, 2000, 2005, 2010 and the population density by PU* for the years 2000 and 2010 is given in Figures 6.2 and 6.3 respectively.

The forecasts are based on the official BBS national rate of 2.01% pa during the first five year period rather than the lower but unofficial SWA figure of 1.89%. In the absence also of officially released growth rates 2.02% has been applied to both the rural and urban 1991 populations.

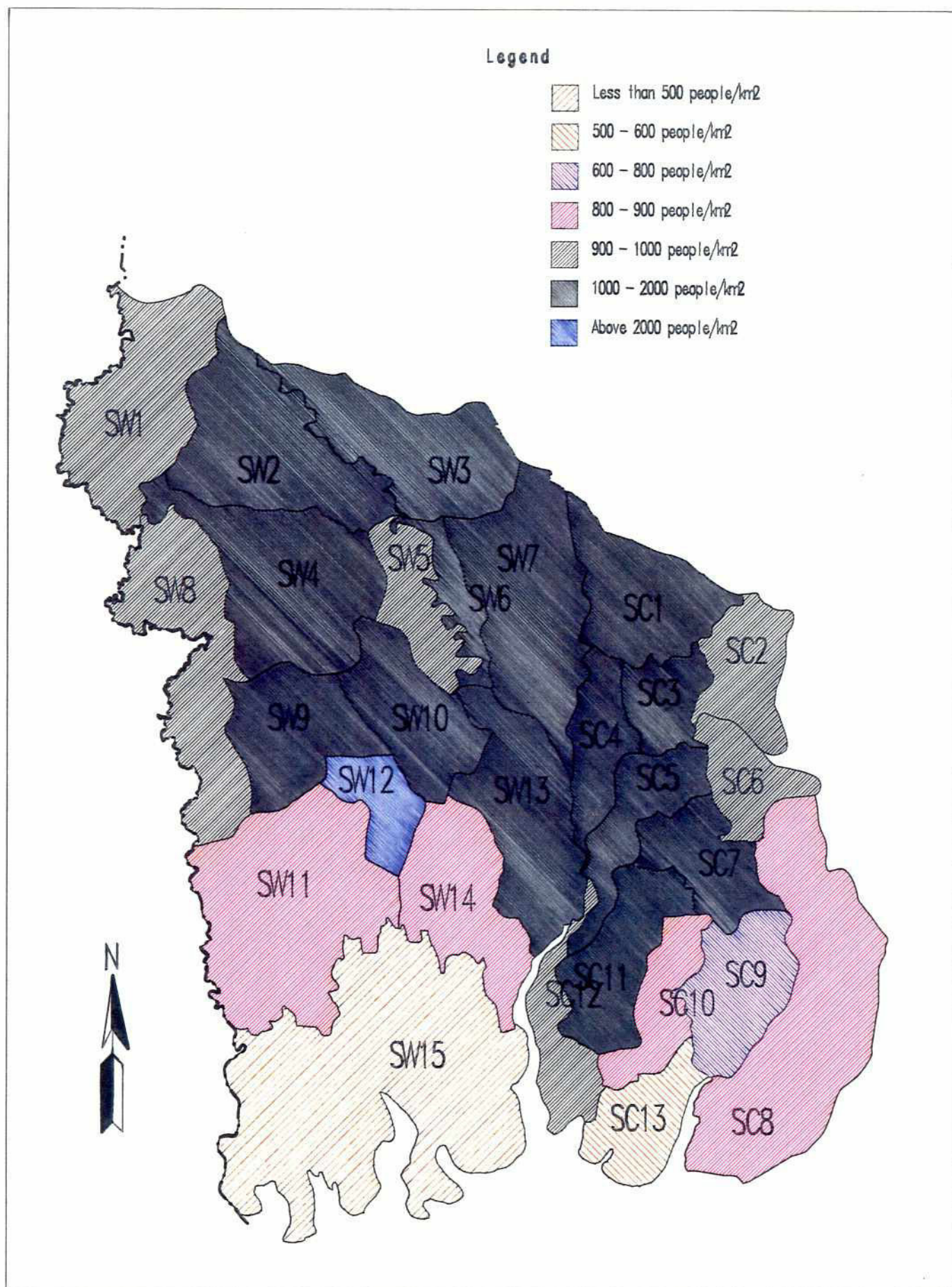
The projections show that population densities in SWA can be expected to rise from 702 pp/km², 774 pp/km² excluding the Sundarbans in 1991 to 930 and 1030 pp/km² in 2010. Even if the proportion of farming households remains unaltered at 76% the effect on the farming community will be drastic unless migration to urban centres or out of SWA occurs or, as is most likely the proportion of landless within the rural areas increases very substantially. To retain the same amount of land for each farming household the proportion of landless households (including fishermen) would have to increase from about one quarter in 1991 to 36% in 2000 and 43% in 2010.

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Figure 6.2



POPULATION DENSITY 2000

Figure 6.3



POPULATION DENSITY 2010

TABLE 6.3
Population Data in Planning Unit (PU) for 1995

Planning Unit	PU AREA km ² (a)	RURALPOP (c)	URBANPOP (e)	TOTALPOP (g)	MALES (h)	FEMALES (i)	Total Density No/km ²	Rural Density No/km ²
SW1	1807	1,404,725	66,834	1,471,556	753,969	717,587	814.4	777.4
SW2	1892	1,637,392	161,225	1,798,613	934,990	863,623	950.8	865.6
SW3	1653	1,329,117	102,662	1,431,774	737,785	693,989	866.4	804.3
SW4	2047	1,482,129	235,637	1,717,762	883,850	833,912	839.2	724.1
SW5	719	543,105	15,110	558,213	282,721	275,492	776.7	755.7
SW6	415	339,236	2,008	341,242	172,082	169,160	823.1	818.3
SW7	1950	1,636,985	47,795	1,684,774	851,707	833,067	864.1	839.6
SW8	1815	1,328,213	83,756	1,411,964	722,066	689,924	777.9	731.8
SW9	1163	1,030,616	33,570	1,064,181	545,661	518,520	915.1	886.2
SW10	1094	685,067	277,804	962,868	498,168	464,700	880.3	626.3
SW11	2710	1,819,307	29,301	1,848,600	938,717	909,898	682.2	671.4
SW12	585	314,035	716,265	1,030,299	551,774	478,525	1759.9	536.4
SW13	1626	1,242,173	130,555	1,372,724	676,352	656,290	844.0	763.8
SW14	1342	878,905	105,508	984,409	507,901	476,509	733.5	654.9
SW15	4010	436,172	0	436,172	223,624	212,547	108.8	108.8
Sub-Total	24,827	16,107,176	2,008,030	18,115,151	9,281,366	8,793,743	729.7	648.8
SC1	1276	1,192,787	63,618	1,256,400	633,587	622,812	984.5	934.7
SC2	851	651,029	0	651,029	329,892	321,137	765.2	765.2
SC3	543	590,402	9,665	600,065	304,560	295,506	1104.3	1086.5
SC4	713	656,522	7,250	663,769	335,600	328,169	930.4	920.2
SC5	817	870,905	16,882	887,782	447,157	440,625	1086.1	1065.4
SC6	712	523,104	40,206	563,308	292,971	270,337	791.1	734.6
SC7	823	749,321	164,930	914,249	471,492	442,758	1110.3	910.0
SC8	2680	1,815,436	82,864	1,898,293	977,521	920,772	708.3	677.4
SC9	867	530,161	25,741	555,900	279,325	276,575	641.1	611.4
SC10	677	426,414	35,212	461,623	231,894	229,729	681.6	629.6
SC11	1053	878,881	27,099	905,975	453,793	452,182	860.4	834.7
SC12	592	453,572	7,460	461,029	232,993	228,036	778.3	765.8
SC13	783	345,617	0	345,617	175,112	170,505	441.6	441.6
Sub-Total	12,389	9,684,150	480,927	10,165,040	5,165,898	4,999,143	820.5	781.7
PU Total	37,216	25,791,326	2,488,957	28,280,191	14,447,264	13,792,886	759.9	693.0
Thana Total		25,801,258	2,503,807	28,304,963	14,458,261	13,806,662		

Source : Derived from 1981 and 1991 Population Censuses, BBS.

Note : The discrepancy between PU total and Thana figures arises from adjustment of data to study areas.

TABLE 6.4
Population Data in Planning Unit (PU) for 2000

Planning Unit	PU AREA km ² (a)	RURALPOP (c)	URBANPOP (e)	TOTALPOP (g)	MALES (h)	FEMALES (i)	Total Density No/km ²	Rural Density No/km ²
SW1	1807	1,528,256	72,712	1,600,964	820,273	780,691	886.0	845.8
SW2	1892	1,781,384	175,403	1,956,782	1,017,213	939,569	1034.4	941.7
SW3	1653	1,445,999	111,690	1,557,683	802,666	755,018	942.6	875.0
SW4	2047	1,612,467	256,359	1,868,821	961,575	907,246	913.0	787.8
SW5	719	590,865	16,439	607,302	307,583	299,719	845.0	822.2
SW6	415	369,068	2,185	371,251	187,215	184,036	895.5	890.2
SW7	1950	1,780,941	51,998	1,832,932	926,606	906,327	940.1	913.4
SW8	1815	1,445,016	91,121	1,536,132	785,564	750,595	846.3	796.1
SW9	1163	1,121,248	36,522	1,157,765	593,647	564,118	995.5	964.1
SW10	1094	745,311	302,234	1,047,543	541,977	505,566	957.7	681.4
SW11	2710	1,979,296	31,878	2,011,165	1,021,267	989,914	742.2	730.4
SW12	585	341,652	779,253	1,120,903	600,296	520,606	1914.6	583.6
SW13	1626	1,351,409	142,036	1,493,440	735,830	714,004	918.2	830.9
SW14	1342	956,196	114,787	1,070,978	552,565	518,413	798.0	712.4
SW15	4010	474,528	0	474,528	243,289	231,239	118.3	118.3
Sub-Total	24,827	17,523,634	2,184,616	19,708,189	10,097,565	9,567,061	793.8	705.8
SC1	1276	1,297,680	69,212	1,366,887	689,305	677,582	1071.1	1016.9
SC2	851	708,280	0	708,280	358,903	349,378	832.5	832.5
SC3	543	642,322	10,515	652,835	331,342	321,492	1201.4	1182.0
SC4	713	714,256	7,888	722,141	365,113	357,028	1012.2	1001.1
SC5	817	947,492	18,367	965,853	486,480	479,374	1181.6	1159.1
SC6	712	569,105	43,742	612,845	318,735	294,110	860.7	799.3
SC7	823	815,216	179,434	994,648	512,955	481,694	1208.0	990.0
SC8	2680	1,975,084	90,151	2,065,228	1,063,483	1,001,744	770.6	737.0
SC9	867	576,783	28,005	604,786	303,889	300,897	697.5	665.2
SC10	677	463,913	38,307	502,218	252,287	249,932	741.5	685.0
SC11	1053	956,169	29,482	985,646	493,700	491,946	936.1	908.1
SC12	592	493,458	8,115	501,572	253,483	248,089	846.8	833.1
SC13	783	376,012	0	376,011	190,512	185,499	480.4	480.4
Sub-Total	12,389	10,535,770	523,218	11,058,949	5,620,184	5,438,765	892.6	850.4
PU Total	37,216	28,059,404	2,707,834	30,767,138	15,717,749	15,005,826	826.7	754.0
Thana Total		28,070,209	2,723,991	30,794,089	15,729,714	15,020,814		

Source : Derived from 1981 and 1991 Population Censuses, BBS.

Note : The discrepancy between PU total and Thana figures arises from adjustment of data to study areas.

TABLE 6.5
Population Data in Planning Unit (PU) for 2005

Planning Unit	PU AREA km ² (a)	RURALPOP (c)	URBANPOP (e)	TOTALPOP (g)	MALES (h)	FEMALES (i)	Total Density No/km ²	Rural Density No/km ²
SW1	1807	1,638,271	77,946	1,716,213	879,322	836,891	949.8	906.7
SW2	1892	1,909,621	188,030	2,097,646	1,090,440	1,007,207	1108.8	1009.5
SW3	1653	1,550,093	119,730	1,669,817	860,448	809,370	1010.5	938.0
SW4	2047	1,728,544	274,813	2,003,353	1,030,797	972,557	978.7	944.5
SW5	719	633,400	17,622	651,020	329,725	321,295	905.9	881.4
SW6	415	395,636	2,342	397,976	200,692	197,284	960.0	954.3
SW7	1950	1,909,147	55,741	1,964,881	993,310	971,571	1007.7	979.1
SW8	1815	1,549,039	97,681	1,646,714	842,115	804,629	907.3	853.5
SW9	1163	1,201,963	39,151	1,241,110	636,382	604,728	1067.2	1033.5
SW10	1094	798,964	323,991	1,122,953	580,992	541,960	1026.6	730.4
SW11	2710	2,121,781	34,173	2,155,944	1,094,785	1,061,176	795.6	783.0
SW12	585	366,246	835,349	1,201,594	643,510	558,083	2052.5	625.6
SW13	1626	1,448,694	152,261	1,600,949	788,801	765,403	984.3	890.7
SW14	1342	1,025,030	123,050	1,148,075	592,343	555,732	855.4	763.7
SW15	4010	508,688	0	508,688	260,803	247,885	126.9	126.9
Sub-Total	24,827	18,785,119	2,341,881	21,126,935	10,824,465	10,255,771	851.0	756.7
SC1	1276	1,391,097	74,195	1,465,286	738,926	726,360	1148.2	1090.1
SC2	851	759,268	0	759,268	384,739	374,528	892.4	892.4
SC3	543	688,561	11,272	699,831	355,195	344,636	1287.9	1267.1
SC4	713	765,674	8,456	774,126	391,396	382,730	1085.0	1073.2
SC5	817	1,015,700	19,689	1,035,383	521,500	513,883	1266.7	1242.6
SC6	712	610,074	46,891	656,962	341,680	315,282	922.6	856.8
SC7	823	873,901	192,351	1,066,251	549,881	516,370	1294.9	1061.3
SC8	2680	2,117,266	96,641	2,213,899	1,140,041	1,073,858	826.1	790.0
SC9	867	618,304	30,021	648,323	325,765	322,558	747.7	713.1
SC10	677	497,308	41,065	538,372	270,448	267,924	794.9	734.3
SC11	1053	1,025,002	31,605	1,056,600	529,240	527,360	1003.4	973.4
SC12	592	528,981	8,700	537,678	271,730	265,948	907.7	893.1
SC13	783	403,079	0	403,079	204,226	198,853	515.0	515.0
Sub-Total	12,389	11,294,215	560,884	11,855,057	6,024,768	5,830,289	956.9	911.6
PU Total	37,216	30,079,334	2,902,765	32,981,992	16,849,233	16,086,060	886.2	808.2
Thana Total		30,090,917	2,920,084	33,010,883	16,862,058	16,102,127		

Source : Derived from 1981 and 1991 Population Censuses, BBS.

Note : The discrepancy between PU total and Thana figures arises from adjustment of data to study areas.

TABLE 6.6
Population Data in Planning Unit (PU) for 2010

Planning Unit	PU AREA km ² (a)	RURALPOP (c)	URBANPOP (e)	TOTALPOP (g)	MALES (h)	FEMALES (i)	Total Density No/km ²	Rural Density No/km ²
SW1	1807	1,721,839	81,922	1,803,758	924,177	879,581	998.3	952.9
SW2	1892	2,007,031	197,621	2,204,647	1,146,063	1,058,585	1165.4	1060.9
SW3	1653	1,629,163	125,837	1,754,995	904,339	850,656	1062.0	985.9
SW4	2047	1,816,717	288,832	2,105,545	1,083,378	1,022,167	1028.7	887.6
SW5	719	665,710	18,521	684,229	346,544	337,684	952.1	926.3
SW6	415	415,817	2,462	418,277	210,929	207,348	1008.9	1003.0
SW7	1950	2,006,532	58,584	2,065,109	1,043,979	1,021,131	1059.1	1029.1
SW8	1815	1,628,055	102,663	1,730,713	885,071	845,673	953.6	897.0
SW9	1163	1,263,276	41,148	1,304,419	668,844	635,575	1121.6	1086.3
SW10	1094	839,720	340,518	1,180,235	610,629	569,606	1079.0	767.7
SW11	2710	2,230,013	35,916	2,265,919	1,150,630	1,115,307	836.2	822.9
SW12	585	384,929	877,961	1,262,887	676,336	586,551	2157.2	657.5
SW13	1626	1,522,592	160,028	1,682,614	829,037	804,446	1034.6	936.2
SW14	1342	1,077,317	129,327	1,206,638	622,559	584,080	899.0	802.7
SW15	4010	534,637	0	534,637	274,107	260,530	133.3	133.3
Sub-Total	24,827	19,743,349	2,461,340	22,204,621	11,376,622	10,778,918	894.4	795.2
SC1	1276	1,462,057	77,979	1,540,030	776,619	763,411	1206.8	1145.7
SC2	851	797,998	0	797,998	404,365	393,633	937.9	937.9
SC3	543	723,685	11,847	735,529	373,313	362,216	1353.6	1331.8
SC4	713	804,731	8,887	813,614	411,361	402,253	1140.4	1127.9
SC5	817	1,067,510	20,693	1,088,198	548,102	540,096	1331.3	1306.0
SC6	712	641,194	49,283	690,474	359,109	331,365	969.7	900.5
SC7	823	918,479	202,163	1,120,640	577,930	542,710	1361.0	1115.5
SC8	2680	2,225,268	101,570	2,326,830	1,198,195	1,128,635	868.2	830.3
SC9	867	649,844	31,552	681,394	342,382	339,011	785.8	749.4
SC10	677	522,676	43,159	565,834	284,244	281,590	835.4	771.7
SC11	1053	1,077,287	33,217	1,110,498	556,236	554,261	1054.6	1023.1
SC12	592	555,965	9,144	565,106	285,590	279,514	954.1	938.6
SC13	783	423,640	0	423,640	214,644	208,996	541.3	541.3
Sub-Total	12,389	11,870,333	589,495	12,459,784	6,332,091	6,127,692	1005.7	958.1
PU Total	37,216	31,613,682	3,050,835	34,664,405	17,708,713	16,906,610	931.4	849.5
Thana Total		31,625,856	3,069,038	34,694,769	17,722,193	16,923,497		

Source : Derived from 1981 and 1991 Population Censuses, BBS.

Note : The discrepancy between PU total and Thana figures arises from adjustment of data to study areas.

The present and future estimated figures below illustrate the effect of expected population growth in rural SWA:

	1991	1995	2000	2005	2010
Rural Density (1) pp/km ²	705	765	830	890	935
Cultivable land Ha/Hh (2)	0.595	0.556	0.512	0.477	0.454

- (1) excluding the Sundarbans
- (2) Based on a total potentially cultivable area of 25608 km² and 5.51 persons each household.

Chapter 5 clearly shows the implications for food production and nutrition if no significant developments take place in SWA even at the low growth rates forecast and assumed in the study analyses.

7 DEVELOPMENT PROPOSALS

7.1 Introduction

The SWA study has resulted in three sets of water resource management development proposals.

- (i) A Regional Plan derived from a number of different options identified by the Resource Allocation and Optimisation Model (RAOM - Volume 5, Part 3);
- (ii) Two pre-feasibility studies, for the Gorai Augmentation (Volume 12) and Chenchuri Beel Rehabilitation Projects (Volume 13) and finally
- (iii) Six pre-investment studies that were originally put forward in the Second Interim Report (also Volume 13).

Full details of the Regional Plan options and the other studies are given in the volumes referred to. The following three sections summarises the results of the economic analyses.

7.2 The Regional Plan

7.2.1 Development Options

The development options were identified from both an appreciation of SWA conditions and the RAOM based studies described in Volume 5 and summarised in the Main Report (Section 5.3).

Four Regional Development Options were identified:

- (i) **No Development:**
Definition of a reference situation in which no interventions are made other than the progressive development of groundwater irrigation which achieves full resource utilisation by the year 2005; implicit within the reference situation was that groundwater development is essentially a private sector investment which may be presumed to continue to expand irrespective of public sector investments in FCD, surface irrigation and surface water augmentation. This equated with the without project position in the study's economic analyses
- (ii) **Development without surface water augmentation:**
A similar series of investigations in which it is assumed that public sector investment in FCD and surface water irrigation will progress at an approximately even rate through to the year 2020 alongside groundwater development, the ultimate extent of the works being constrained by physical resources and a minimum benefit/cost ratio of unity (at 12% discount rate) but not by any overall investment limit
- (iii) **Development with the Gorai Augmentation Project:**
As (ii) above but with the preferred arrangements for the Gorai intake and Kamarkhali weir being in place by the year 2000 and transfers channels completed by 2005, development continuing thereafter to the year 2020.
- (iv) **Development with a Ganges Barrage:**
As (iii) above with Barrage completed by 2005, the main transfer canals by 2010 and a Hisni transfer by 2020

- (v) **Alternative Long-Term Development Options:**
Analyses of the impacts of alternative strategies, such as allocation of flows for the purposes of salinity control, augmentation of South Central Region surface water resources, impacts of varying Ganges flows and alternative objectives for development aside from economic growth.

7.2.2 The Reference Situation

The Reference Situation is taken as one in which, whilst population continues to increase together with food demands, the only development of water resources is groundwater. It is assumed that by the year 2005 all currently available resources would have been developed.

The results indicate that there is potential to develop about 138,000 ha in the Southwest Region and about 156,000 ha in the South Central Region. The main areas of best development potential are in Planning Units SW3, SW5, SW7, SC1, SC2, SC3 and SC4 with limited potential in adjacent Units. The total economic capital cost of this development is approximately Taka 2.9 billion and the NPV (benefits less capital and recurrent costs) is about Taka 19.1 billion, giving an overall benefit cost ratio of about 3.5.

These figures emphasise the profitability of groundwater development and substantiate the assumption that it will continue to occur, providing the necessary credit and technical capability are available.

The main shortcoming of development in the reference situation is that there is relatively little impact at a regional level on the supply of food with shortages in 1991 of 33% and 34% in the Southwest and South Central Regions rising to 50% and 46% respectively.

7.2.3 Development without Surface Water Augmentation

In this series of analyses it was assumed that rehabilitation and construction of new FCD schemes together with surface water irrigation could develop alongside groundwater. It was assumed that development in the South Central of FCDI would be phased over 30 years to 2020 whereas, given the more limited opportunities, development in the Southwest Region would be substantially completed by 2005.

In the Southwest Region it was concluded that development of about 100,000 ha of new FCD schemes was economically viable, together with rehabilitation of around 80,000 of FCD and development of surface water irrigation (LLP) of about 16,000 ha. The figures for irrigation, as throughout the strategic analyses, are based on mean runoff within the two Regions as it is considered this is a more representative assessment of how LLP irrigation would tend to develop than the alternative of using 80% dependable values. (A test was made of the sensitivity to this assumption of irrigable area which revealed about a 17% increase in augmentation flow requirements). In contrast to analyses in earlier reports, no provision has been allowed for the conjunctive use of groundwater and surface water for irrigation as, whilst clearly optimal in terms of resource allocation, the implementation of such schemes is now considered an impractical basis for regional planning.

Development of new FCD in the Southwest was found to be worthwhile mainly in Planning Units SW3 and SW7 where value could be added to groundwater development, with rehabilitation shown viable for similar reasons in SW3, SW5, SW7, SW10 and SW13. The very limited opportunities for expansion of surface irrigation are best focussed on SW10 (using what little Gorai flows are available combined with MB route outflows) and SW13 which benefits from flows from the Swarupkati system.

A similar pattern emerges for the South Central Region with new and rehabilitated FCD found worthwhile mainly in the north-east corner in Planning Units SC1 - SC6 with the exception of SC2 for which little other than groundwater is assessed as viable.

The estimated economic capital costs of the total development (including groundwater) are Taka 1.9 billion and Taka 5.9 billion respectively in the Southwest and South Central Regions with an NPV (benefits less costs) of about Taka 35 billion overall. The benefits/cost ratio overall is estimated to be about 3.5.

Whilst in both Regions these again represent attractive options, in the Southwest Region the development leads only to a marginal improvement in food production, due mainly to the small increase in irrigated area. In the South Central Region, a significant improvement is attained with shortages in 2020 reduced from 49% in the reference situation to 30% with these interventions.

7.2.4 Development with Augmentation of the Gorai

The main options open are to build an intake structure on the Gorai river with associated capital and maintenance dredging, to build a control structure downstream of the Kamarkhali bend, to transfer water east (Link 6) to serve Planning Units SW6 and SW7, or to the west (Links 7 and 8) serving Planning Units SW5 and SW4 respectively, or any logical combination of these. Links 9-11 are options to serve the western areas possible only with the higher command levels available with a Ganges Barrage in place.

Analyses undertaken (Volume 5, Part 3, RAO) reveal that Link 7, serving Planning Unit SW7 and enabling a reliable supply to reach the proposed intake for Khulna water supply, should be developed first with Links 6 and 8 following thereafter. Whilst assumptions regarding the South Central Region remained as before, it was assumed that the Gorai intake, Kamarkhali weir and Link 7 could all be constructed by the year 2000, with the remaining two Links by 2005 and all other developments completed by 2020.

The South Central Region's results are the same as for the previous situation with no changes. For the Southwest, development potential is significantly increased to about 168,000 ha of new FCD, 139,000 ha of rehabilitated FCD and 186,000 ha of surface irrigation. The availability of cheaper surface irrigation supplies compared to groundwater development indicate that only about 100,000 ha of groundwater would be developed by 2020 compared with about 138,000 ha in the reference situation. Such a conclusion adds credence to the idea that provision of surface water would help enforce a groundwater buffer zone.

The total economic capital costs (including groundwater) in the Southwest are Taka 8.8 billion of which the intake works and NPV of dredging are Taka 2.9 billion and the transfer canals and diversion weir are Taka 1.8 billion. The augmented flow in the Gorai at full development would be about 180 cumec with about 60 cumec to Link 6 and 110 cumec to Link 7, the small balance passing downstream of the weir. The NPV of benefits less costs is about Taka 17.9 billion with benefit cost ratio of about 2.5 overall for the Southwest Region.

The Gorai Augmentation Project brings marked benefits to areas along the Gorai where water may be transferred to, securing significant reductions in food shortages most notably in Planning Units 5 and 6 as well as good improvements in SW7 and SW10. However, overall the Southwest Region would still be some 42% short of food in 2020.

7.2.5 Development with a Ganges Barrage

The final and recommended option includes the construction of a Barrage across the Ganges river.

The presence of a Ganges Barrage would enable construction of any of eleven possible transfer channels within SWA. It also enables flows to be allocated, if required, to salinity control south of Khulna, to augmenting supplies to the South Central Region and, with construction of a Hisni transfer in the west, to the Hisni - Mathabanga system. When constructed, the Barrage will raise water levels to an extent that will virtually eliminate the need for maintenance dredging in the Gorai.

At full development in 2020 the total areas that were shown to be viable to develop in the Southwest Region are approximately 253,000 ha of new FCD, 147,000 ha of rehabilitated FCD and 580,000 ha of surface water irrigation. Groundwater development would be reduced from the reference situation by 49,000 ha to 89,000 ha. ?!

The investment and incremental benefit flows for the Regional Plan are summarised in Table 7.1. Details are shown separately for the Southwest Region (SWR) and South Central Region (SCR) and, combined, for SWA. The cost benefit flows in are over a 50 year period in order to include the benefits from the construction of the proposed Ganges Barrage scheduled between 1998 and 2005.

The analysis indicates that the programme will achieve an overall economic internal rate of return (EIRR) of 19.8%; 14.8% for SWR including the Ganges Barrage and 47.8% for SCR. The net present values (NPV) at a 12% discount rate and benefit : cost ratios will be:

	NPV M Tk	B/C ratio
SWR	5147	1.28
SCR	9162	13.27
SWA	18726	1.62

A number of sensitivity analyses were carried out with the results summarised in Table 7.2.

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TABLE 7.1
Economic Cash Flows
Ganges Barrage minus Reference Situation

<i>Agriculture</i>	<i>7 years build up</i>	<i>Discount rate</i>	<i>12%</i>	<i>Cost Factors</i>	<i>100%</i>
<i>Capture Fisheries</i>	<i>1 years build up</i>	<i>Benefit Factor</i>	<i>100%</i>	<i>Ganges Barrage</i>	<i>100%</i>
<i>Damage reduction</i>	<i>1 years build up</i>			<i>Other Capital Costs</i>	<i>100%</i>
				<i>Maintenance Costs</i>	<i>100%</i>

Year	1993	1994	1995	1996	1997	1998	1999	2000
	1	2	3	4	5	6	7	8
Economic Benefit Cash Flows (Million Taka)								
<i>Southwest</i>	<i>NPV</i>							
Agricultural benefits	26,903.9	-	104.6	209.3	313.9	476.8	698.0	1,252.3
Capture Fisheries and Shrimp	(3,196.3)	-	(23.3)	(46.6)	(58.3)	(113.9)	(169.5)	(280.7)
Damage reduction (MTk/yr)	124.3	-	3.6	7.2	9.0	10.8	12.5	16.0
Total	23,831.9	-	84.9	169.9	264.7	373.7	541.0	987.6
<i>South Central</i>								
Agricultural benefits	17,496.2	-	128.4	256.8	385.3	570.5	812.5	1,085.7
Capture Fisheries and Shrimp	(7,796.0)	-	(100.6)	(201.3)	(251.6)	(371.7)	(491.8)	(611.8)
Damage reduction (MTk/yr)	208.7	-	3.7	7.4	9.2	11.1	13.1	16.9
Total	9,909.0	-	31.5	62.9	142.9	210.0	333.8	675.0
<i>Totals for Southwest Area</i>								
Agricultural benefits	44,400.1	-	233.1	466.1	699.2	1,047.3	1,510.5	2,042.1
Capture Fisheries	(10,992.3)	-	(123.9)	(247.9)	(309.9)	(485.6)	(661.3)	(836.9)
Damage reduction (MTk/yr)	333.0	-	7.3	14.6	18.2	21.9	25.6	29.3
Total	33,740.9	-	116.4	232.8	407.6	583.7	874.8	1,662.6
Economic Investment Cash Flows (Million Taka)								
<i>Total Capital Costs</i>	<i>NPV</i>							
Southwest incl. Barrage	16,626.0	101.3	135.3	270.5	1,181.1	1,181.1	1,364.6	1,548.0
South Central	1,559.7	128.1	170.8	341.7	224.9	224.9	224.9	224.9
Total	18,185.7	229.4	306.1	612.2	1,406.0	1,406.0	1,589.5	1,772.9
<i>Total Recurrent Costs</i>								
Southwest incl. Barrage	2,059.0	0.0	(56.8)	(113.6)	(142.0)	(121.6)	(101.1)	(80.6)
South Central	(812.9)	(0.0)	(30.6)	(61.3)	(76.6)	(86.5)	(96.3)	(106.2)
Total	1,246.1	0.0	(87.5)	(174.9)	(218.6)	(208.0)	(197.4)	(176.2)
<i>Total Expenditure</i>								
Southwest incl. Barrage	18,685.0	101.3	78.4	156.9	1,039.1	1,059.6	1,263.5	1,467.4
South Central	746.7	128.1	140.2	280.4	148.3	138.4	128.6	118.7
Total	19,431.8	229.4	218.6	437.3	1,187.4	1,198.0	1,392.1	1,586.1
Net Economic Cash Flows (Million Taka)								
<i>Southwest Region (incl. Barrage)</i>	<i>NPV</i>							
Total Expenditure	18,685.0	101.3	78.4	156.9	1,039.1	1,059.6	1,263.5	1,467.4
Total Benefits	23,831.9	-	84.9	169.9	264.7	373.7	541.0	987.6
Net Benefits	5,146.9	(101.3)	6.5	13.0	(774.4)	(685.9)	(722.5)	(500.3)
	14.8%	EIRR						
<i>South Central</i>								
Total Expenditure	746.7	128.1	140.2	280.4	148.3	138.4	128.6	118.7
Total Benefits	9,909.0	-	31.5	62.9	142.9	210.0	333.8	488.9
Net Benefits	9,162.2	(128.1)	(108.7)	(217.4)	(5.4)	71.5	205.3	370.1
	47.8%	EIRR						
<i>Overall Southwest Area</i>								
Total Expenditure	19,431.8	229.4	218.6	437.3	1,187.4	1,198.0	1,392.1	1,586.1
Total Benefits	33,740.9	-	116.4	232.8	407.6	583.7	874.8	1,234.5
Net Benefits	14,309.1	(229.4)	(102.2)	(204.4)	(779.8)	(614.3)	(517.2)	65.8
	19.8%	EIRR						

Source : Southwest and South Central Region Combined RAOM

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Economic Cash Flows

Ganges Barrage minus Reference Situation

	2001 9	2002 10	2003 11	2004 12	2005 13	2006 14	2007 15	2008 16	2009 17	2010 18
Economic Benefit Cash Flows (Million Taka)										
Southwest										
Agricultural benefits	1,585.4	2,024.3	2,568.8	3,181.7	3,863.0	4,612.6	5,478.3	6,460.2	7,489.8	8,567.3
Capture Fisheries and Shrimp	(336.3)	(405.0)	(473.8)	(542.3)	(610.9)	(679.6)	(759.4)	(839.3)	(919.1)	(998.9)
Damage reduction (MTk/yr)	17.8	16.1	14.4	12.7	11.0	9.3	16.1	23.0	29.9	36.7
Total	1,266.9	1,635.4	2,109.5	2,652.1	3,263.0	3,942.2	4,735.0	5,643.9	6,600.6	7,605.1
South Central										
Agricultural benefits	1,725.4	2,099.1	2,511.2	2,930.4	3,356.9	3,790.6	4,222.5	4,652.8	5,074.1	5,486.5
Capture Fisheries and Shrimp	(852.0)	(985.8)	(1,119.6)	(1,253.4)	(1,387.2)	(1,521.0)	(1,722.3)	(1,923.7)	(2,125.1)	(2,326.4)
Damage reduction (MTk/yr)	18.9	25.2	31.5	37.9	44.2	50.6	55.5	60.4	65.4	70.3
Total	892.2	1,138.5	1,423.1	1,714.9	2,014.0	2,320.2	2,555.7	2,789.5	3,014.4	3,230.5
Totals for Southwest Area										
Agricultural benefits	3,310.8	4,123.4	5,080.0	6,112.2	7,219.9	8,403.2	9,700.9	11,113.0	12,564.0	14,053.8
Capture Fisheries	(1,188.3)	(1,390.8)	(1,593.2)	(1,795.7)	(1,998.1)	(2,200.6)	(2,481.8)	(2,763.0)	(3,044.1)	(3,325.3)
Damage reduction (MTk/yr)	36.6	41.3	45.9	50.5	55.2	59.8	71.6	83.4	95.3	107.1
Total	2,159.1	2,773.9	3,532.7	4,367.0	5,276.9	6,262.4	7,290.7	8,433.5	9,615.1	10,835.5
Economic Investment Cash Flows (Million Taka)										
Total Capital Costs										
Southwest incl. Barrage	7,885.8	7,885.8	7,885.8	7,885.8	7,885.8	994.2	994.2	994.2	994.2	994.2
South Central	207.3	207.3	207.3	207.3	207.3	221.1	221.1	221.1	221.1	221.1
Total	8,093.1	8,093.1	8,093.1	8,093.1	8,093.1	1,215.3	1,215.3	1,215.3	1,215.3	1,215.3
Total Recurrent Costs										
Southwest incl. Barrage	(56.5)	141.7	339.9	538.2	736.4	934.6	963.0	991.4	1,019.8	1,048.2
South Central	(125.9)	(126.4)	(126.8)	(127.3)	(127.8)	(128.2)	(140.5)	(152.9)	(165.2)	(177.5)
Total	(182.4)	15.4	213.1	410.9	608.6	806.3	822.4	838.5	854.7	870.8
Total Expenditure										
Southwest incl. Barrage	7,829.3	8,027.5	8,225.7	8,423.9	8,622.2	1,928.8	1,957.2	1,985.6	2,014.0	2,042.4
South Central	81.4	80.9	80.4	80.0	79.5	92.9	80.5	68.2	55.9	43.6
Total	7,910.7	8,108.4	8,306.2	8,503.9	8,701.7	2,021.6	2,037.7	2,053.8	2,069.9	2,086.1
Net Economic Cash Flows (Million Taka)										
Southwest Region (incl. Barrage)										
Total Expenditure	7,829.3	8,027.5	8,225.7	8,423.9	8,622.2	1,928.8	1,957.2	1,985.6	2,014.0	2,042.4
Total Benefits	1,266.9	1,635.4	2,109.5	2,652.1	3,263.0	3,942.2	4,735.0	5,643.9	6,600.6	7,605.1
Net Benefits	(6,562.4)	(6,392.2)	(6,116.2)	(5,771.9)	(5,359.2)	2,013.5	2,777.8	3,658.3	4,586.6	5,562.6
South Central										
Total Expenditure	81.4	80.9	80.4	80.0	79.5	92.9	80.5	68.2	55.9	43.6
Total Benefits	892.2	1,138.5	1,423.1	1,714.9	2,014.0	2,320.2	2,555.7	2,789.5	3,014.4	3,230.5
Net Benefits	810.9	1,057.6	1,342.7	1,635.0	1,934.5	2,227.3	2,475.2	2,721.3	2,958.5	3,186.8
Overall Southwest Area										
Total Expenditure	7,910.7	8,108.4	8,306.2	8,503.9	8,701.7	2,021.6	2,037.7	2,053.8	2,069.9	2,086.1
Total Benefits	2,159.1	2,773.9	3,532.7	4,367.0	5,276.9	6,262.4	7,290.7	8,433.5	9,615.1	10,835.5
Net Benefits	(5,751.6)	(5,334.5)	(4,773.5)	(4,136.9)	(3,424.7)	4,240.8	5,253.0	6,379.6	7,545.1	8,749.5

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Economic Cash Flows

Ganges Barrage minus Reference Situation

	2011 19	2012 20	2013 21	2014 22	2015 23	2016 24	2017 25	2018 26	2019 27	2020 28
Economic Benefit Cash Flows (Million Taka)										
Southwest										
Agricultural benefits	9,692.4	10,798.5	11,885.4	12,905.5	13,858.6	14,744.9	15,564.2	16,316.7	17,069.2	17,821.6
Capture Fisheries and Shrimp	(1,078.7)	(1,125.0)	(1,171.2)	(1,217.4)	(1,263.6)	(1,309.8)	(1,356.0)	(1,402.3)	(1,448.5)	(1,494.7)
Damage reduction (MTk/yr)	43.6	43.6	43.7	43.7	43.8	43.8	43.9	43.9	44.0	44.0
Total	8,657.3	9,717.2	10,758.0	11,731.8	12,638.8	13,478.9	14,252.1	14,958.4	15,664.6	16,370.9
South Central										
Agricultural benefits	5,890.1	6,257.5	6,588.7	6,892.8	7,169.7	7,419.4	7,641.9	7,837.1	8,032.4	8,227.7
Capture Fisheries and Shrimp	(2,527.8)	(2,631.0)	(2,734.2)	(2,837.4)	(2,940.6)	(3,043.8)	(3,147.0)	(3,250.2)	(3,353.4)	(3,456.6)
Damage reduction (MTk/yr)	75.3	74.7	74.0	73.4	72.8	72.2	71.5	70.9	70.3	69.7
Total	3,437.6	3,701.1	3,928.6	4,128.9	4,301.9	4,447.8	4,566.4	4,657.9	4,749.3	4,840.8
Totals for Southwest Area										
Agricultural benefits	15,582.5	17,056.0	18,474.2	19,798.3	21,028.3	22,164.3	23,206.1	24,153.8	25,101.6	26,049.3
Capture Fisheries	(3,606.5)	(3,755.9)	(3,905.4)	(4,054.8)	(4,204.2)	(4,353.6)	(4,503.0)	(4,652.5)	(4,801.9)	(4,951.3)
Damage reduction (MTk/yr)	118.9	118.3	117.7	117.1	116.6	116.0	115.4	114.8	114.3	113.7
Total	12,094.8	13,418.3	14,686.5	15,860.7	16,940.7	17,926.6	18,818.5	19,616.2	20,414.0	21,211.7
Economic Investment Cash Flows (Million Taka)										
Total Capital Costs										
Southwest incl. Barrage	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
South Central	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
Total	680.1	680.1	680.1	680.1	680.1	680.1	680.1	680.1	680.1	680.1
Total Recurrent Costs										
Southwest incl. Barrage	1,076.7	1,091.4	1,106.2	1,120.9	1,135.7	1,150.4	1,165.2	1,179.9	1,194.7	1,209.4
South Central	(189.8)	(189.1)	(188.4)	(187.8)	(187.1)	(186.5)	(185.8)	(185.1)	(184.5)	(183.8)
Total	886.9	902.3	917.7	933.1	948.6	964.0	979.4	994.8	1,010.2	1,025.6
Total Expenditure										
Southwest incl. Barrage	1,750.6	1,765.4	1,780.2	1,794.9	1,809.7	1,824.4	1,839.2	1,853.9	1,868.7	1,883.4
South Central	(183.7)	(183.0)	(182.3)	(181.7)	(181.0)	(180.3)	(179.7)	(179.0)	(178.4)	(177.7)
Total	1,567.0	1,582.4	1,597.8	1,613.2	1,628.7	1,644.1	1,659.5	1,674.9	1,690.3	1,705.7
Net Economic Cash Flows (Million Taka)										
Southwest Region (incl. Barrage)										
Total Expenditure	1,750.6	1,765.4	1,780.2	1,794.9	1,809.7	1,824.4	1,839.2	1,853.9	1,868.7	1,883.4
Total Benefits	8,657.3	9,717.2	10,758.0	11,731.8	12,638.8	13,478.9	14,252.1	14,958.4	15,664.6	16,370.9
Net Benefits	6,906.6	7,951.8	8,977.8	9,936.9	10,829.1	11,654.5	12,412.9	13,104.4	13,796.0	14,487.5
South Central										
Total Expenditure	(183.7)	(183.0)	(182.3)	(181.7)	(181.0)	(180.3)	(179.7)	(179.0)	(178.4)	(177.7)
Total Benefits	3,437.6	3,701.1	3,928.6	4,128.9	4,301.9	4,447.8	4,566.4	4,657.9	4,749.3	4,840.8
Net Benefits	3,621.2	3,884.1	4,110.9	4,310.5	4,482.9	4,628.1	4,746.1	4,836.9	4,927.7	5,018.5
Overall Southwest Area										
Total Expenditure	1,567.0	1,582.4	1,597.8	1,613.2	1,628.7	1,644.1	1,659.5	1,674.9	1,690.3	1,705.7
Total Benefits	12,094.8	13,418.3	14,686.5	15,860.7	16,940.7	17,926.6	18,818.5	19,616.2	20,414.0	21,211.7
Net Benefits	10,527.9	11,835.9	13,088.7	14,247.4	15,312.0	16,282.6	17,159.0	17,941.3	18,723.6	19,505.9

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Economic Cash Flows

Ganges Barrage minus Reference Situation

	2021 29	2022 30	2023 31	2024 32	2025 33	2026 34	2027 35	2028 36	2029 37	2030 38
<i>Economic Benefit Cash Flows (Million Taka)</i>										
Southwest										
Agricultural benefits	18,574.1	19,219.0	19,756.5	20,186.5	20,509.0	20,724.0	20,831.5	20,831.5	20,831.5	20,831.5
Capture Fisheries and Shrimp	(1,540.9)	(1,540.9)	(1,540.9)	(1,540.9)	(1,540.9)	(1,540.9)	(1,540.9)	(1,540.9)	(1,540.9)	(1,540.9)
Damage reduction (MTk/yr)	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1
Total	17,077.2	17,722.2	18,259.7	18,689.6	19,012.1	19,227.1	19,334.6	19,334.6	19,334.6	19,334.6
South Central										
Agricultural benefits	8,423.0	8,590.3	8,729.8	8,841.4	8,925.1	8,980.9	9,008.8	9,008.8	9,008.8	9,008.8
Capture Fisheries and Shrimp	(3,559.8)	(3,559.8)	(3,559.8)	(3,559.8)	(3,559.8)	(3,559.8)	(3,559.8)	(3,559.8)	(3,559.8)	(3,559.8)
Damage reduction (MTk/yr)	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0
Total	4,932.2	5,099.6	5,239.1	5,350.7	5,434.3	5,490.1	5,518.0	5,518.0	5,518.0	5,518.0
Totals for Southwest Area										
Agricultural benefits	26,997.0	27,809.4	28,486.3	29,027.9	29,434.1	29,704.8	29,840.2	29,840.2	29,840.2	29,840.2
Capture Fisheries	(5,100.7)	(5,100.7)	(5,100.7)	(5,100.7)	(5,100.7)	(5,100.7)	(5,100.7)	(5,100.7)	(5,100.7)	(5,100.7)
Damage reduction (MTk/yr)	113.1	113.1	113.1	113.1	113.1	113.1	113.1	113.1	113.1	113.1
Total	22,009.4	22,821.8	23,498.7	24,040.3	24,446.5	24,717.2	24,852.6	24,852.6	24,852.6	24,852.6
<i>Economic Investment Cash Flows (Million Taka)</i>										
Total Capital Costs										
Southwest incl. Barrage	-	-	-	-	-	-	-	-	-	-
South Central	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-
Total Recurrent Costs										
Southwest incl. Barrage	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2
South Central	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)
Total	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1
Total Expenditure										
Southwest incl. Barrage	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2
South Central	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)
Total	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1
<i>Net Economic Cash Flows (Million Taka)</i>										
Southwest Region (incl. Barrage)										
Total Expenditure	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2
Total Benefits	17,077.2	17,722.2	18,259.7	18,689.6	19,012.1	19,227.1	19,334.6	19,334.6	19,334.6	19,334.6
Net Benefits	15,853.0	16,498.0	17,035.5	17,465.4	17,787.9	18,002.9	18,110.4	18,110.4	18,110.4	18,110.4
South Central										
Total Expenditure	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)
Total Benefits	4,932.2	5,099.6	5,239.1	5,350.7	5,434.3	5,490.1	5,518.0	5,518.0	5,518.0	5,518.0
Net Benefits	5,115.4	5,282.7	5,422.2	5,533.8	5,617.5	5,673.3	5,701.2	5,701.2	5,701.2	5,701.2
Overall Southwest Area										
Total Expenditure	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1
Total Benefits	22,009.4	22,821.8	23,498.7	24,040.3	24,446.5	24,717.2	24,852.6	24,852.6	24,852.6	24,852.6
Net Benefits	20,968.4	21,780.7	22,457.7	22,999.2	23,405.4	23,676.2	23,811.6	23,811.6	23,811.6	23,811.6

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Economic Cash Flows

Ganges Barrage minus Reference Situation

	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
	39	40	41	42	43	44	45	46	47	48
<i>Economic Benefit Cash Flows (Million Taka)</i>										
Southwest										
Agricultural benefits	20,831.5	20,831.5	20,831.5	20,831.5	20,831.5	20,831.5	20,831.5	20,831.5	20,831.5	20,831.5
Capture Fisheries and Shrimp	(1,540.9)	(1,540.9)	(1,540.9)	(1,540.9)	(1,540.9)	(1,540.9)	(1,540.9)	(1,540.9)	(1,540.9)	(1,540.9)
Damage reduction (MTk/yr)	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1
Total	19,334.6	19,334.6	19,334.6	19,334.6	19,334.6	19,334.6	19,334.6	19,334.6	19,334.6	19,334.6
South Central										
Agricultural benefits	9,008.8	9,008.8	9,008.8	9,008.8	9,008.8	9,008.8	9,008.8	9,008.8	9,008.8	9,008.8
Capture Fisheries and Shrimp	(3,559.8)	(3,559.8)	(3,559.8)	(3,559.8)	(3,559.8)	(3,559.8)	(3,559.8)	(3,559.8)	(3,559.8)	(3,559.8)
Damage reduction (MTk/yr)	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0
Total	5,518.0	5,518.0	5,518.0	5,518.0	5,518.0	5,518.0	5,518.0	5,518.0	5,518.0	5,518.0
Totals for Southwest Area										
Agricultural benefits	29,840.2	29,840.2	29,840.2	29,840.2	29,840.2	29,840.2	29,840.2	29,840.2	29,840.2	29,840.2
Capture Fisheries	(5,100.7)	(5,100.7)	(5,100.7)	(5,100.7)	(5,100.7)	(5,100.7)	(5,100.7)	(5,100.7)	(5,100.7)	(5,100.7)
Damage reduction (MTk/yr)	113.1	113.1	113.1	113.1	113.1	113.1	113.1	113.1	113.1	113.1
Total	24,852.6	24,852.6	24,852.6	24,852.6	24,852.6	24,852.6	24,852.6	24,852.6	24,852.6	24,852.6
<i>Economic Investment Cash Flows (Million Taka)</i>										
Total Capital Costs										
Southwest incl Barrage	-	-	-	-	-	-	-	-	-	-
South Central	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-
Total Recurrent Costs										
Southwest incl Barrage	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2
South Central	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)
Total	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1
Total Expenditure										
Southwest incl Barrage	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2
South Central	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)
Total	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1
<i>Net Economic Cash Flows (Million Taka)</i>										
Southwest Region (incl. Barrage)										
Total Expenditure	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2	1,224.2
Total Benefits	19,334.6	19,334.6	19,334.6	19,334.6	19,334.6	19,334.6	19,334.6	19,334.6	19,334.6	19,334.6
Net Benefits	18,110.4	18,110.4	18,110.4	18,110.4	18,110.4	18,110.4	18,110.4	18,110.4	18,110.4	18,110.4
South Central										
Total Expenditure	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)	(183.1)
Total Benefits	5,518.0	5,518.0	5,518.0	5,518.0	5,518.0	5,518.0	5,518.0	5,518.0	5,518.0	5,518.0
Net Benefits	5,701.2	5,701.2	5,701.2	5,701.2	5,701.2	5,701.2	5,701.2	5,701.2	5,701.2	5,701.2
Overall Southwest Area										
Total Expenditure	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1	1,041.1
Total Benefits	24,852.6	24,852.6	24,852.6	24,852.6	24,852.6	24,852.6	24,852.6	24,852.6	24,852.6	24,852.6
Net Benefits	23,811.6	23,811.6	23,811.6	23,811.6	23,811.6	23,811.6	23,811.6	23,811.6	23,811.6	23,811.6

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TABLE 7.2

Summary of Regional Plan Sensitivity Analyses

	South West Region			South Central Region			Southwest Area		
	EIRR %	NPV (12%) Mtk	B/C ratio	EIRR %	NPV (12%) Mtk	B/C %	EIRR %	NPV (12%) Mtk	B/C ratio
Base Case	14.8	5147	1.3	47.8	9162	13.3	19.8	14309	1.7
Sensitivity Analyses									
Costs + 20%	12.7	1410	1.1	43.1	9013	11.1	16.8	10423	1.5
Benefits -20%	12.2	381	1.0	42.1	7180	10.6	16.1	7561	1.4
Costs + 20% and benefits -20%	10.3	(3357)	.9	38.0	7031	8.9	13.7	3675	1.2
Benefits delayed 2 years	12.1	172	1.0	34.3	7112	10.5	15.2	7284	1.4
Switching values									
Benefits minus %		(22.5)			(92.1)			(43.0)	
Costs plus %		29.0			1160			75.0	
Ganges Barrage Costs only %		(50.0)							

Source: Consultants' estimates.

The sensitivity analyses show that the overall Regional Plan proposed is likely to be acceptable, in all cases it exceeds the required 12% opportunity cost of capital set by FPCO. The programme for SCR will definitely be acceptable, even if costs increase by 20% and benefits fall by a similar proportion or benefits are delayed two years the EIRR does not fall below 34%. In contrast the proposals for SWR which include the Ganges Barrage can only be considered marginal. The EIRR falls below 12%, to 10.4%, if both costs and benefits change by 20%. The three other sensitivity analyses all reduce the EIRR to between 12% and 13%. However the estimates of costs and benefits have assumed that the full cost of the Barrage is offset against benefits from the Ganges Right Bank. It has not been possible to assess benefits that may be realised from development on the Left Bank. If these were included the SWR Plan could be more attractive.

The above analyses do not take into account the non-agricultural flood damages which will be avoided after the Project is completed. If the non-agricultural damages are taken into account, then the EIRR is slightly better at 21.78%. The details of non-agricultural damages computation are given in Appendix J. Tables 7.3 and 7.4 give the investment and increment benefit flows for the Regional Plan with the non-agricultural damages, and the sensitivity analyses respectively.

As would be expected, the Ganges Barrage development as described has a major impact on food production and in Planning Units SW1 to SW6 and SW8 would create surpluses in 2020. Significant improvements would also be achieved in SW7, SW9 and SW10 also and overall shortages within the Region would be reduced to 25% in 2020. However it may be noted that SW11 to SW14 will still remain in considerable deficit.

TABLE 7.3

Economic Analysis : Development with the Ganges Barrage M Tk (1991 Economic Values)

Year	Capital Costs	Recurrent Costs	Fishery Loss	Total Costs	Agri Benefits	Agri Flood Da Avoided	Non-Agri Flood Dama Avoided	Total Benefit	Net Cash-Flow
1993	229.40	0.00	0.00	229.40	0.00	0.00	0.00	0.00	-229.40
1994	306.10	-87.50	123.90	342.50	233.10	7.30	0.00	240.40	-102.10
1995	612.20	-174.90	247.90	685.20	466.10	14.60	0.00	480.70	-204.50
1996	1406.00	-218.60	309.90	1497.30	699.20	18.20	0.00	717.40	-779.90
1997	1406.00	-208.00	485.60	1683.60	1047.30	21.90	0.00	1069.20	-614.40
1998	1589.50	-197.40	661.30	2053.40	1510.50	25.60	0.00	1536.10	-517.30
1999	1772.90	-186.80	836.90	2423.00	2042.10	29.30	0.00	2071.40	-351.60
2000	1772.90	-176.20	1012.60	2609.30	2642.30	33.00	0.00	2675.30	66.00
2001	8093.10	-182.40	1188.30	9099.00	3310.80	36.60	0.00	3347.40	-5751.60
2002	8093.10	15.40	1390.80	9499.30	4123.40	41.30	0.00	4164.70	-5334.60
2003	8093.10	213.10	1593.20	9899.40	5080.00	45.90	0.00	5125.90	-4773.50
2004	8093.10	410.90	1795.70	10299.70	6112.20	50.50	0.00	6162.70	-4137.00
2005	8093.10	608.60	1998.10	10699.80	7219.90	55.20	1479.39	8754.49	-1945.31
2006	1215.30	806.30	2200.60	4222.20	8403.20	59.80	1538.57	10001.57	5779.37
2007	1215.30	822.40	2481.80	4519.50	9700.90	71.60	1600.11	11372.61	6853.11
2008	1215.30	838.50	2763.00	4816.80	11113.00	83.40	1664.11	12860.51	8043.71
2009	1215.30	854.70	3044.10	5114.10	12564.00	95.30	1730.68	14389.98	9275.88
2010	1215.30	870.80	3325.30	5411.40	14053.80	107.10	1799.90	15960.80	10549.40
2011	680.10	886.90	3606.50	5173.50	15582.50	118.90	1871.90	17573.30	12399.80
2012	680.10	902.30	3755.90	5338.30	17056.00	118.30	1946.78	19121.08	13782.78
2013	680.10	917.70	3905.40	5503.20	18474.20	117.70	2024.65	20616.55	15113.35
2014	680.10	933.10	4054.80	5668.00	19798.30	117.10	2105.63	22021.03	16353.03
2015	680.10	948.60	4204.20	5832.90	21028.30	116.60	2189.86	23334.76	17501.86
2016	680.10	964.00	4353.60	5997.70	22164.30	116.00	2277.45	24557.75	18560.05
2017	680.10	979.40	4503.00	6162.50	23206.10	115.40	2368.55	25690.05	19527.55
2018	680.10	994.80	4652.50	6327.40	24153.80	114.80	2463.29	26731.89	20404.49
2019	680.10	1010.20	4801.90	6492.20	25101.60	114.30	2561.82	27777.72	21285.52
2020	680.10	1025.60	4951.30	6657.00	26049.30	113.70	2664.30	28827.30	22170.30
2021	0.00	1041.10	5100.70	6141.80	26997.00	113.10	2770.87	29880.97	23739.17
2022	0.00	1041.10	5100.70	6141.80	27809.40	113.10	2881.70	30804.20	24662.40
2023	0.00	1041.10	5100.70	6141.80	28486.30	113.10	2996.97	31596.37	25454.57
2024	0.00	1041.10	5100.70	6141.80	29027.90	113.10	3116.85	32257.85	26116.05
2025	0.00	1041.10	5100.70	6141.80	29434.10	113.10	3241.53	32788.73	26646.93
2026	0.00	1041.10	5100.70	6141.80	29704.80	113.10	3371.19	33189.09	27047.29
2027	0.00	1041.10	5100.70	6141.80	29840.20	113.10	3506.03	33459.33	27317.53
2028	0.00	1041.10	5100.70	6141.80	29840.20	113.10	3646.28	33599.58	27457.78
2029	0.00	1041.10	5100.70	6141.80	29840.20	113.10	3792.13	33745.43	27603.63
2030	0.00	1041.10	5100.70	6141.80	29840.20	113.10	3943.81	33897.11	27755.31
2031	0.00	1041.10	5100.70	6141.80	29840.20	113.10	4101.56	34054.86	27913.06
2032	0.00	1041.10	5100.70	6141.80	29840.20	113.10	4265.63	34218.93	28077.13
2033	0.00	1041.10	5100.70	6141.80	29840.20	113.10	4436.25	34389.55	28247.75
2034	0.00	1041.10	5100.70	6141.80	29840.20	113.10	4613.70	34567.00	28425.20
2035	0.00	1041.10	5100.70	6141.80	29840.20	113.10	4798.25	34751.55	28609.75
2036	0.00	1041.10	5100.70	6141.80	29840.20	113.10	4990.18	34943.48	28801.68
2037	0.00	1041.10	5100.70	6141.80	29840.20	113.10	5189.79	35143.09	29001.29
2038	0.00	1041.10	5100.70	6141.80	29840.20	113.10	5397.38	35350.68	29208.88
2039	0.00	1041.10	5100.70	6141.80	29840.20	113.10	5613.27	35566.57	29424.77
2040	0.00	1041.10	5100.70	6141.80	29840.20	113.10	5837.80	35791.10	29649.30
SUM	62438.00	34393.50	170262.10	267093.60	892158.50	4221.40	114798.17	1011178.07	744084.47
NPV	18185.74	1246.10	10992.26	30424.10	44400.21	332.98	4417.13	49150.33	18726.23
EIRR		21.78%							
NPV M Tk		18726.23							
NPV Benefits		49150.33							
NPV Costs		30424.10							
B/C Ratio		1.62							

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TABLE 7.4

Sensitivity Analysis : Ganges Barrage

Effect on the EIRR:

Change in Costs	Change in Benefits				
	-20%	-10%	0%	10%	20%
-20%	21.78%	25.47%	29.73%	34.94%	41.80%
-10%	18.80%	21.78%	25.03%	28.72%	33.07%
0%	16.53%	19.08%	21.78%	24.69%	27.94%
10%	14.71%	16.99%	19.32%	21.78%	24.41%
20%	13.20%	15.28%	17.57%	19.52%	21.78%

Effect on the NPV:

Change in Costs	Change in Benefits				
	-20%	-10%	0%	10%	20%
-20%	14980.98	19896.01	24811.05	29726.08	36641.11
-10%	11938.57	16853.60	21768.64	26683.67	31598.70
0%	8896.16	13811.19	18726.23	23641.26	28556.29
10%	5853.75	10768.79	15683.82	20598.85	25513.00
20%	2811.34	7726.37	12641.41	17556.44	22471.47

Effect on the B/C Ratio:

Change in Costs	Change in Benefits				
	-20%	-10%	0%	10%	20%
-20%	1.62	1.82	2.02	2.22	2.42
-10%	1.44	1.62	1.80	1.97	2.15
0%	1.29	1.45	1.62	1.78	1.94
10%	1.17	1.32	1.47	1.62	1.76
20%	1.08	1.21	1.35	1.48	1.62

Effects of Delay in the maturing of Project Benefits:

Delay (Yrs)	EIRR	NPV @12%	B/C Ratio
0	21.78%	18726.23	1.62
1	17.76%	13321.42	1.44
2	15.28%	8496.56	1.29
3	13.50%	4189.49	1.14
4	12.12%	344.70	1.01
5	10.98%	-3087.38	0.90

Effects of Increased Recurrent Costs:

Change in Costs	EIRR	NPV @12%	B/C Ratio
0%	21.78%	18726.23	1.62
10%	21.55%	18447.09	1.60
20%	21.33%	18167.95	1.59
30%	21.12%	17888.81	1.57
40%	20.91%	17609.68	1.56
50%	20.70%	17330.54	1.54

Switching Values:

For an EIRR of 12%,

The Costs will have to increase by 61.5%, or Benefits decrease by 38.1%.

The results are summarised in Table 7.5 and discussed further in Section 5.

TABLE 7.5

Food Energy Balances Without and With the SWA Regional Plan

	1991	1995	2000	2010	2020
Deficit percent					
Without Plan					
SWR	33	36	40	45	50
SCR	34	35	37	40	46
With Plan					
SWR	33	35	33	24	25
SCR	34	27	27	24	30
No. Planning Units with no deficit					
Without Plan					
SWR	2	2	1	-	-
SCR	-	-	-	-	-
With Plan					
SWR	3	3	3	6	7
SCR	1	1	1	1	-

Source: Consultants' estimates.

The Regional Plan will require an investment of Tk 82115 M between 1993 and 2020 at 1991 financial prices.

The flow of investment is summarised in Table 7.6 by five year periods and in Table 7.7 by individual year.

In addition there is expected to be an investment of Tk 3635 M with or without the implementation of the Plan for exploitation of SWA's groundwater resources.

The phasing of costs will be:

	1993 1995	1996 2000	2001 2005	2006 2010	2011 2015	2016 2020
Percent total investment						
SWR ⁽¹⁾	1	12	67	9	6	5
SCR	16	28	26	28	1	1
SWA	2	13	65	10	5	5

⁽¹⁾ Including Ganges Barrage.

The Ganges Barrage will account for 58% of total expenditure and results in almost 70% of expenditure in SWA being scheduled for 1998 - 2005.

The costs of operation and maintenance of the Plan are also given in the two tables. They will rise to Tk 2240 M each year when capital development is complete in 2020.

TABLE 7.6
Proposed Ganges Barrage Development
Financial Investment Cash Flows
(Million Taka and Million Taka per Year)

From : To :		1993 1995	1996 2000	2001 2005	2006 2010	2011 2015	2016 2020	2021 2025	2026 2030	2031 2035	2036 2040
Overall Capital Investment (excluding Groundwater)											
	<i>M. Taka</i>										
Ganges Barrage	48,000.0	-	1,200.0	46,800.0	-	-	-	-	-	-	-
Southwest	28,923.7	673.0	7,754.3	4,903.9	6,823.6	4,384.4	4,384.4	-	-	-	-
South Central	5,191.7	838.9	1,470.9	1,356.0	1,445.9	40.0	40.0	-	-	-	-
Total	82,115.4	1,511.9	10,425.2	53,059.9	8,269.5	4,424.5	4,424.5	-	-	-	-
Overall Pumping and O&M (excluding Groundwater) [1]											
	<i>M. Taka/year</i>										
Maintenance Dredging	6.6	-	11.5	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
Southwest	1,377.9	(15.8)	(3.8)	669.7	1,604.4	1,798.7	1,897.7	1,957.1	1,957.1	1,957.1	1,957.1
South Central	220.5	14.4	83.5	191.0	256.8	277.9	276.9	276.3	276.3	276.3	276.3
Total	1,605.1	(1.4)	91.3	867.5	1,868.1	2,083.4	2,181.4	2,240.2	2,240.2	2,240.2	2,240.2
Groundwater Development Capital											
	<i>M. Taka</i>										
Southwest	958.3	352.0	409.2	194.6	1.3	0.6	0.6	-	-	-	-
South Central	2,676.9	803.9	1,094.9	772.7	2.3	1.5	1.5	-	-	-	-
Total	3,635.1	1,155.9	1,504.1	967.3	3.7	2.1	2.1	-	-	-	-
Groundwater Pumping and O&M Costs [1]											
	<i>M. Taka/year</i>										
Southwest	210.9	185.4	197.4	213.2	217.8	217.4	216.2	215.4	215.4	215.4	215.4
South Central	132.9	72.2	103.1	135.4	148.1	145.3	145.1	145.0	145.0	145.0	145.0
Total	343.8	257.6	300.5	348.6	365.9	362.6	361.3	360.4	360.4	360.4	360.4
Total Capital Costs											
	<i>M. Taka</i>										
Southwest incl. Barrage	77,882.0	1,025.0	9,363.5	51,898.4	6,824.9	4,385.0	4,385.0	-	-	-	-
South Central	7,868.6	1,642.8	2,565.8	2,128.7	1,448.2	41.5	41.5	-	-	-	-
Total	85,750.5	2,667.8	11,929.3	54,027.2	8,273.2	4,426.6	4,426.6	-	-	-	-
Total Recurrent Costs											
	<i>M. Taka/year</i>										
Southwest incl. Barrage	1,595.5	169.7	205.2	889.8	1,829.0	2,022.9	2,120.7	2,179.3	2,179.3	2,179.3	2,179.3
South Central	353.5	86.6	188.6	326.4	404.9	423.1	422.0	421.3	421.3	421.3	421.3
Total	1,948.9	256.2	391.8	1,216.2	2,233.9	2,446.0	2,542.6	2,600.6	2,600.6	2,600.6	2,600.6
Total Expenditure											
	<i>M. Taka</i>										
Southwest incl. Barrage	93,836.5	1,194.7	9,568.7	52,788.3	8,653.9	6,407.9	6,505.7	2,179.3	2,179.3	2,179.3	2,179.3
South Central	11,403.3	1,729.4	2,752.4	2,455.1	1,853.2	464.6	463.5	421.3	421.3	421.3	421.3
Total	105,239.7	2,924.0	12,321.0	55,243.3	10,507.1	6,872.6	6,969.2	2,600.6	2,600.6	2,600.6	2,600.6

Note [1] : O&M costs are split approximately by proportioning on capital costs
Source : Southwest And South Central Region Combined RAOM Results

TABLE 7.7

Financial Investment Cash Flows (Million Taka)

Proposed Ganges Barrage Development

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
	1	2	3	4	5	6	7	8	9	10	11	12
Overall Capital Investment (excluding Groundwater)												
Ganges Barrage	-	-	-	-	-	240.0	480.0	480.0	9,360.0	9,360.0	9,360.0	9,360.0
Southwest	142.0	177.0	354.0	1,550.9	1,550.9	1,550.9	1,550.9	1,550.9	980.8	980.8	980.8	980.8
South Central	168.1	223.6	447.2	294.2	294.2	294.2	294.2	294.2	271.2	271.2	271.2	271.2
Total	310.1	400.6	801.2	1,845.0	1,845.0	2,085.0	2,325.0	2,325.0	10,612.0	10,612.0	10,612.0	10,612.0
Overall Pumping and O&M (excluding Groundwater) [1]												
Maintenance Dredging	-	-	-	-	5.8	11.5	17.3	23.0	6.8	6.8	6.8	6.8
Southwest	29.2	(15.8)	(60.7)	(83.2)	(43.5)	(3.8)	35.9	75.6	115.4	392.5	669.7	946.9
South Central	0.8	14.4	28.0	34.8	59.1	83.5	107.9	132.2	156.6	173.8	191.0	208.2
Total	29.9	(1.4)	(32.7)	(48.4)	21.4	91.3	161.1	230.9	278.8	573.2	867.5	1,161.9
Groundwater Development Capital												
Southwest	126.1	75.3	150.6	81.8	81.8	81.8	81.8	81.8	38.9	38.9	38.9	38.9
South Central	253.1	183.6	367.2	219.0	219.0	219.0	219.0	219.0	154.5	154.5	154.5	154.5
Total	379.2	258.9	517.8	300.8	300.8	300.8	300.8	300.8	193.5	193.5	193.5	193.5
Groundwater Pumping and O&M Costs [1]												
Southwest	183.2	185.4	187.7	188.9	193.1	197.4	201.7	206.0	210.3	211.8	213.2	214.7
South Central	61.6	72.2	82.8	88.0	95.6	103.1	110.6	118.1	125.7	130.5	135.4	140.2
Total	244.8	257.6	270.5	276.9	288.7	300.5	312.3	324.1	335.9	342.3	348.6	355.0
Total Capital Costs												
Southwest incl. Barrage	268.2	252.3	504.5	1,632.7	1,632.7	1,872.7	2,112.7	2,112.7	10,379.7	10,379.7	10,379.7	10,379.7
South Central	421.2	407.2	814.4	513.2	513.2	513.2	513.2	513.2	425.7	425.7	425.7	425.7
Total	689.3	659.5	1,319.0	2,145.9	2,145.9	2,385.9	2,625.9	2,625.9	10,805.4	10,805.4	10,805.4	10,805.4
Total Recurrent Costs												
Southwest incl. Barrage	212.3	169.7	127.0	105.7	155.4	205.2	254.9	304.7	332.5	611.1	889.8	1,168.5
South Central	62.4	86.6	110.7	122.8	154.7	186.6	218.5	250.4	282.3	304.3	326.4	348.4
Total	274.7	256.2	237.7	228.5	310.1	391.8	473.4	555.0	614.7	915.4	1,216.2	1,516.9
Total Expenditure												
Southwest incl. Barrage	480.5	422.0	631.6	1,738.4	1,788.1	2,077.9	2,367.6	2,417.4	10,712.2	10,990.8	11,269.5	11,548.2
South Central	483.6	493.8	925.1	636.0	667.9	699.7	731.6	763.5	708.0	730.0	752.1	774.1
Total	964.1	915.7	1,556.7	2,374.4	2,456.0	2,777.6	3,099.3	3,180.9	11,420.2	11,720.9	12,021.6	12,322.3

Source : Southwest and South Central Region Combined RAOM

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
	13	14	15	16	17	18	19	20	21	22	23	24	25
Overall Capital Investment (excluding Groundwater)													
Ganges Barrage	9,360.0	-	-	-	-	-	-	-	-	-	-	-	-
Southwest	980.8	1,364.7	1,364.7	1,364.7	1,364.7	1,364.7	876.9	876.9	876.9	876.9	876.9	876.9	876.9
South Central	271.2	289.2	289.2	289.2	289.2	289.2	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Total	10,612.0	1,653.9	1,653.9	1,653.9	1,653.9	1,653.9	884.9	884.9	884.9	884.9	884.9	884.9	884.9
Overall Pumping and O&M (excluding Groundwater) [1]													
Maintenance Dredging	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
Southwest	1,224.1	1,501.3	1,552.8	1,604.4	1,655.9	1,707.5	1,759.1	1,778.9	1,798.7	1,818.5	1,838.3	1,858.1	1,877.9
South Central	225.4	242.6	249.7	256.8	264.0	271.1	278.3	278.1	277.9	277.7	277.5	277.3	277.1
Total	1,456.3	1,750.7	1,809.4	1,868.1	1,926.8	1,985.5	2,044.2	2,063.8	2,083.4	2,103.0	2,122.6	2,142.2	2,161.8
Groundwater Development Capital													
Southwest	38.9	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1
South Central	154.5	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Total	193.5	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Groundwater Pumping and O&M Costs [1]													
Southwest	216.2	217.7	217.7	217.8	217.8	217.8	217.9	217.6	217.4	217.1	216.9	216.6	216.4
South Central	145.1	149.9	149.0	148.1	147.2	146.3	145.3	145.3	145.3	145.2	145.2	145.2	145.1
Total	361.3	367.6	366.8	365.9	365.0	364.1	363.2	362.9	362.6	362.4	362.1	361.8	361.5
Total Capital Costs													
Southwest incl. Barrage	10,379.7	1,365.0	1,365.0	1,365.0	1,365.0	1,365.0	877.0	877.0	877.0	877.0	877.0	877.0	877.0
South Central	425.7	289.6	289.6	289.6	289.6	289.6	8.3	8.3	8.3	8.3	8.3	8.3	8.3
Total	10,805.4	1,654.6	1,654.6	1,654.6	1,654.6	1,654.6	885.3	885.3	885.3	885.3	885.3	885.3	885.3
Total Recurrent Costs													
Southwest incl. Barrage	1,447.1	1,725.8	1,777.4	1,829.0	1,880.6	1,932.2	1,983.8	2,003.3	2,022.9	2,042.4	2,062.0	2,081.5	2,101.1
South Central	370.5	392.5	398.7	404.9	411.2	417.4	423.6	423.4	423.1	422.9	422.7	422.4	422.2
Total	1,817.6	2,118.3	2,176.1	2,233.9	2,291.7	2,349.5	2,407.4	2,426.7	2,446.0	2,465.3	2,484.7	2,504.0	2,523.3
Total Expenditure													
Southwest incl. Barrage	11,826.8	3,090.8	3,142.4	3,194.0	3,245.6	3,297.2	2,860.8	2,880.3	2,899.9	2,919.4	2,939.0	2,958.6	2,978.1
South Central	796.2	682.1	688.4	694.6	700.8	707.0	431.9	431.7	431.4	431.2	431.0	430.7	430.5
Total	12,623.0	3,772.9	3,830.7	3,888.6	3,946.4	4,004.2	3,292.7	3,312.0	3,331.3	3,350.6	3,370.0	3,389.3	3,408.6

	2018 26	2019 27	2020 28	2021 29	2022 30	2023 31	2024 32	2025 33	2026 34	2027 35	2028 36	2029 37	2030 38
Overall Capital Investment (excluding Groundwater)													
Ganges Barrage	-	-	-	-	-	-	-	-	-	-	-	-	-
Southwest	876.9	876.9	876.9	-	-	-	-	-	-	-	-	-	-
South Central	8.0	8.0	8.0	-	-	-	-	-	-	-	-	-	-
Total	884.9	884.9	884.9	-	-	-	-	-	-	-	-	-	-
Overall Pumping and O&M (excluding Groundwater) [1]													
Maintenance Dredging	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
Southwest	1,897.7	1,917.5	1,937.3	1,957.1	1,957.1	1,957.1	1,957.1	1,957.1	1,957.1	1,957.1	1,957.1	1,957.1	1,957.1
South Central	276.9	276.7	276.5	276.3	276.3	276.3	276.3	276.3	276.3	276.3	276.3	276.3	276.3
Total	2,181.4	2,201.0	2,220.6	2,240.2	2,240.2	2,240.2	2,240.2	2,240.2	2,240.2	2,240.2	2,240.2	2,240.2	2,240.2
Groundwater Development Capital													
Southwest	0.1	0.1	0.1	-	-	-	-	-	-	-	-	-	-
South Central	0.3	0.3	0.3	-	-	-	-	-	-	-	-	-	-
Total	0.4	0.4	0.4	-	-	-	-	-	-	-	-	-	-
Groundwater Pumping and O&M Costs [1]													
Southwest	216.2	215.9	215.7	215.4	215.4	215.4	215.4	215.4	215.4	215.4	215.4	215.4	215.4
South Central	145.1	145.1	145.0	145.0	145.0	145.0	145.0	145.0	145.0	145.0	145.0	145.0	145.0
Total	361.3	361.0	360.7	360.4	360.4	360.4	360.4	360.4	360.4	360.4	360.4	360.4	360.4
Total Capital Costs													
Southwest incl Barrage	877.0	877.0	877.0	-	-	-	-	-	-	-	-	-	-
South Central	8.3	8.3	8.3	-	-	-	-	-	-	-	-	-	-
Total	885.3	885.3	885.3	-	-	-	-	-	-	-	-	-	-
Total Recurrent Costs													
Southwest incl Barrage	2,120.7	2,140.2	2,159.8	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3
South Central	422.0	421.7	421.5	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3
Total	2,542.6	2,562.0	2,581.3	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6
Total Expenditure													
Southwest incl Barrage	2,997.7	3,017.2	3,036.8	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3
South Central	430.3	430.1	429.8	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3
Total	3,427.9	3,447.3	3,466.6	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6

	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
	39	40	41	42	43	44	45	46	47	48
Overall Capital Investment (excluding Groundwater)										
Ganges Barrage										
Southwest										
South Central										
Total										
Overall Pumping and O&M (excluding Groundwater) [1]										
Maintenance Dredging	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
Southwest	1,957.1	1,957.1	1,957.1	1,957.1	1,957.1	1,957.1	1,957.1	1,957.1	1,957.1	1,957.1
South Central	276.3	276.3	276.3	276.3	276.3	276.3	276.3	276.3	276.3	276.3
Total	2,240.2	2,240.2	2,240.2	2,240.2	2,240.2	2,240.2	2,240.2	2,240.2	2,240.2	2,240.2
Groundwater Development Capital										
Southwest										
South Central										
Total										
Groundwater Pumping and O&M Costs [1]										
Southwest	215.4	215.4	215.4	215.4	215.4	215.4	215.4	215.4	215.4	215.4
South Central	145.0	145.0	145.0	145.0	145.0	145.0	145.0	145.0	145.0	145.0
Total	360.4	360.4	360.4	360.4	360.4	360.4	360.4	360.4	360.4	360.4
Total Capital Costs										
Southwest incl Barrage	-	-	-	-	-	-	-	-	-	-
South Central	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-
Total Recurrent Costs										
Southwest incl Barrage	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3
South Central	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3
Total	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6
Total Expenditure										
Southwest incl Barrage	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3	2,179.3
South Central	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3
Total	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6	2,600.6

The expenditures in terms of the total available cultivable area of 25608 km² will be:

	Capital investment Tk/ha	O & M Costs from 2021 Tk/ha
SWR		
With Barrage	47130	
Without Barrage	17720	1203
SCR	5590	300
SWA	32070	875

7.3 Prefeasibility Studies

The results of the economic analyses for the Chenchuri Beel Rehabilitation Project and the Gorai Augmentation Project reflect the two schemes very different cost-benefit structures.

The results of the analyses set out in Table 7.8 are based on FPCO's May 1992 GPA and data from MPO, BBS as well as the Consultants' own investigations. The analyses assumed a 30 year project life with no residual value and a discount rate of 12% in line with FPCO's requirements. The analyses assume a 90% uptake of LLPs in the project areas and a mix of 40% electric and 60% diesel powered pumps, with replacements every eight years. For the analyses 2 cusec pumps were adopted to irrigate 20 ha.

TABLE 7.8

Summary Results of the Economic Analyses of the Chenchuri Beel and Gorai Augmentation Projects (1991 economic values)

Project Indicator	Base case	Costs x 1.2	Benefits x.8	Costs x1. + Benefits	Benefits delayed 2 years
<u>Chenchuri Beel</u>					
EIRR %	30.7	25.3	24.1	19.2	20.7
NPV (12%) Mtk	351.9	282.3	211.9	142.3	212.8
B C ratio	2.01	1.68	1.61	1.34	1.62
<u>Gorai Augmentation</u>					
EIRR %	15.6	12.3	11.6	8.6	11.9
NPV (12%) Mtk	1799.5	174.3	(185.6)	(1810.8)	(44.5)
B C ratio	1.22	1.02	.98	.81	.99

Source: Consultants' estimates.
Gorai Augmentation Project, Volume 12.
Chenchuri Beel Project, Volume 13.

The amounts by which costs have to rise and benefits fall to reduce the base case analyses to an EIRR of 12% are:

	Costs %	Benefits %
Chenchuri Beel	101.1	50.3
Gorai Augmentation	22.0	18.1

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The results illustrate the difference in pleasing of costs relative to benefits in the two projects. The financial capital costs for the two projects are summarised in Table 7.9.

TABLE 7.9

Summary of Financial Costs for the Chenchuri Beel and Gorai Augmentation Projects (1991 Prices)

	Project year											Total
	1	2	3	4	5	6	7	8	9	10	11	
Chenchuri Beel M Tk %	149.0 44.6	168.3 50.3	8.6 2.6	8.6 2.5	0	0	0	0	0	0	0	334.4
Benefits start	and reach full development in year 12											
Gorai Augmentation M Tk %	1130.0 8.8	2649.0 20.7	3055.0 23.9	1293.0 10.1	719.9 5.6	1432.4 11.2	1764.5 13.8	459.0 3.6	228.5 1.8	31.7 .2	17.9 .1	12780.9
Benefits start	and reach full development in year 13											

The results indicate that the Chenchuri Beel Rehabilitation Project is likely to be a favourable national investment. The Gorai Augmentation Project in contrast is marginal in economic terms if a 12% opportunity cost of capital is accepted as necessary.

7.4 Other Development Projects

Seven development projects were identified during the study's preliminary screening of development prospects one of which, the Chenchuri Beel Rehabilitation Project, was carried forward for further assessment after SIR (Volume 13).

Table 7.10 sets out selected cost and cost per hectare information for the remaining six projects. The results of the base economic analyses are given in Table 7.11. The high returns reflect the chosen objective to select at this stage only those projects that are likely to give rapid returns and the targeting of the projects to parts of the study area which the SWA studies indicated appear likely to give the greatest benefits to irrigation and related FCD development. Initial analyses such as these, at the early prefeasibility stage, generally result in higher returns than the more detailed, and project area specific feasibility studies do. A number of sensitivity analyses were undertaken and Table 7.12 summarises the results.



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TABLE 7.10

Summary of Selected SWA Development Projects (1991 Economic Values)

	Projects						Total km ²
	Arial Khan	Padma	Barisal	Swar- upkati	Bishkhali	Narail	
km ²							
Gross Area	936	510	208	169	273	351	3915
NCA	720	390	160	130	210	270	3011
FCD only	250	80	-	30	-	80	760
FCD/I	470	310	160	100	210	190	2251
Financial Costs M Tk							
Capital	1587	955	311	407	469	649	
Recurrent (pa)	238	126	56.7	57	94.1	122	
Tk/ha NCA							
Capital	22000	24500	19440	31000	22335	24000	
Recurrent (pa)	3300	3230	3535	4380	4480	4505	
Foreign exchange Capital M Tk	131	119	3	12	20	28	
Economic Costs M Tk							
Capital	1039	611	199	361	294	399	
Recurrent (pa)	221	118	76	46	82	107	
Tk/ha NCA							
Capital	14400	15600	12420	27800	14010	14780	
Recurrent (pa)	3065	3000	4765	3540	3900	3970	
Economic Incremental Benefit							
Tk/ha NCA	12500	16300	10105	10300	9940	10200	
Fisheries Losses (Tk/ha NCA) (economic value)	660	2600	-	684	-	746	

Source: Consultant's estimates.

TABLE 7.11

Summary of SWA Selected Projects Economic Analyses (1991 Economic values)

Project	Base Case		
	EIRR %	NPV 12% M Tk	B/C ratio
Arial Khan	33.7	2122	1.87
Padma Kumar	32.5	1340	1.73
Barisal Irrigation	24.6	251	1.37
Swarupkati	29.6	275	1.40
Bishkhali	30.0	466	1.58
Narail	21.0	359	1.29

Source : Consultant's estimates.

TABLE 7.12

Summary of Economic Sensitivity Analyses (1991 economic values)

	Arial Khan	Padma- Kumar	Barisal Irrigation	Swarup khati	Bishkhali	Narail
Costs x 1.2 capital						
EIRR %	29.7	29.0	21.5	21.9	26.1	18.9
NPV Mtk	1952	1231	214.2	212	412.7	287
B/C ratio	1.74	1.63	1.3	1.28	1.49	1.22
Costs x 1.2 recurrent						
EIRR %	31.1	30.1	19.7	24.4	26.11	18.3
NPV Mtk	1866	1202	152.3	214	359.1	219
B/C ratio	1.69	1.61	1.2	1.29	1.40	1.16
Costs x 1.2 total						
EIRR %	26.9	25.1	17.2	18.9	22.5	15.6
NPV Mtk	1632	971	115.5	138	306.2	116
B/C ratio	1.55	1.44	1.14	1.17	1.32	1.08
Benefits x 0.8						
EIRR %	25.2	23.9	15.6	17.6	20.9	14.9
NPV Mtk	1207	703	65.34	83	213.1	44
B/C ratio	1.49	1.38	1.1	1.12	1.27	1.04
Benefits delayed x 2 years						
EIRR %	20.1	19.4	13.8	15.4	17.0	12.8
NPV Mtk	1144	659	53.62	72	193.58	24
B/C ratio	1.47	1.36	1.08	1.11	1.24	1.02
Costs x 1.2 and Benefits x 0.8						
EIRR %	22.4	21.1	7.6	13.4	14.0	11.7
NPV Mtk	1037	595	-77.7	20	53.7	-28
B/C ratio	1.40	1.30	0.91	1.03	1.06	0.98

Source : Consultant's estimates

The economic internal rate of return is generally accepted as a good measure to rank independent projects to determine the order in which they should be undertaken. For each project this is given in Table 7.11 as part of the base analysis. The ranking that result from it is :

	Ranking
Arial Khan	1
Padma Kumar	2
Bishkhali	3
Swarupkati	4
Barisal	5
Narail	6

Appendices

APPENDIX A

Derivation of Composite Economic Conversion Factors (CF) for Construction Components

1. Base Components

The FPCO Guidelines (May, 1992) economic conversion factors were used to derive the CFs for construction works using the component cost proportions given in Table B.1 and discussed in Volume 8, Engineering. The weighted, composite CFs are set out in the last column of the table.

TABLE A.1

Basis for Calculation of Economic Conversion Factors of Construction Works

Item	Labour		Materials	Others	Composite CF
	Skilled	Unskilled			
General Earthworks % CF	5 .87	84 .65	-	11 .87	.69
Weighted CF					
RC concrete % CF	2 .87	9 .65	87 .79	2 .79	.78
Weighted CF					
Mass concrete % CF	2 .87	5 .65	90 .79	3 .87	.80
Weighted CF					
Structural Steel % CF	13 .87	- .65	72 .75	15 .87	.78
Weighted CF					
Major Earthworks % CF	7 .87	78 .65	-	15 .87	.70
Weighted CF					

Source: Derived from 1991 BWDB and Highways Department costings
(ref Annex 8 Engineering)
CF - FPCO Guidelines, May 1992 Standard CF.

2. Composite Conversion Factors

The CFs adopted for the analyses derived from the weighted CFs in Table B.1 are presented in Table B.2. For each structure or item they are the weighted values according to the proportion of the major cost components involved in the class of work.

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TABLE A.2

Derivation of Composite Economic Conversion Factors for
Major Structures and Irrigation Distribution Systems

Structure Item	Earthwork	RC Concrete	Mass Concrete	Structural Steel	Machinery	Composite
Pumping Station % ⁽¹⁾	5	24	6	8	57	.69
CF	.70	.78	.80	.78	.62	
Small barrages %	7	55	8	22	8	.76
CF	.70	.78	.80	.78	.62	
Floating Pumps %	-	-	-	40	60	.68
CF	-	-	-	.78	.62	
Large surface Schemes %	13	54	18	15	-	.77
CF	.69	.78	.80	.78	-	
Small Irrigation Schemes ⁽¹⁾ %	45	20	25	10	-	.74
CF	.69	.78	.80	.78	-	

Source: Consultants estimates derived from BWDB etc unit rates and FPCO
Guidelines for Project Assessment May 1992 (1991 prices)

⁽¹⁾ percent of total cost.

APPENDIX B

Tubewell and Low Lift Pump Capital and Operating Costs and
Derivation of Composite Economic Conversion Factors

1. General

The tables in this appendix set out the financial and economic costs of deep tubewells (DTW), shallow tubewells (STW) and low lift pumps (LLP) that are included in the study analyses, RAOM and pre-feasibility studies. The derivation of the composite CFs are clear from the tables.

The following are covered:

		Capital Table	Operating Table	Irrigation ha
DTW	diesel	A1	A7	20
	electric	A2	A8	20
STW	diesel	A3	A9	4
	electric	A4	A10	4
LLP 1 cusec	diesel	A5	A11	8.5
	electric	A5	A12	8.5
LLP 2 cusec	diesel	A6	A13	20
	electric	A6	A13	20

TABLE B.1

Capital Costs DTW Diesel (1991 values)

Taka

Item	Financial			Conv'n Factor	Economic		
	Local	Foreign	Total		Local	Foreign	Total
Pump	169930	247020	416950	0.62	105357	247020	352377
Engine	64000	96000	160000	0.62	39680	96000	135680
P. House	51000	0	51000	0.79	40290	0	40290
Transport	29400	0	29400	0.87	25578	0	25578
Comm'n:							
Material	5000	0	5000	0.61	3050	0	3050
Labour:							
Skilled	5250	0	5250	0.87	4568	0	4568
Unskilled	2250	0	2250	0.65	1463	0	1463
Dev'nt	6300	0	6300	0.87	5481	0	5481
Sub-Total	333130	343020	676150		225466	343020	568486
Test bore	8400	0	8400	0.87	7308	0	7308
Drilling:							
Labour:							
Skilled	16800	0	16800	0.87	14616	0	14616
Unskilled	7350	0	7350	0.65	4778	0	4778
Sinking	30450	0	30450	0.61	18575	0	18575
Materials	22050	0	22050	0.79	17420	0	17420
Sub-Total	85050	0	85050		62696	0	62696
Total	418180	343020	761200	0.83	288161	343020	631181

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TABLE B.2

Capital Costs DTW Electric (1991 values)

Taka

Item	Financial			Conv'n Factor	Economic		
	Local	Foreign	Total		Local	Foreign	Total
Pump	161930	235020	396950	0.62	100397	235020	335417
Engine	37000	0	37000	0.62	22940	0	22940
P. House	51000	0	51000	0.79	40290	0	40290
Transport	29400	0	29400	0.87	25578	0	25578
Comm'n:							
Material	5000	0	5000	0.61	3050	0	3050
Labour:							
Skilled	5250	0	5250	0.87	4568	0	4568
Unskilled	2250	0	2250	0.65	1463	0	1463
Dev't	6300	0	6300	0.87	5481	0	5481
Sub-Total	298130	235020	533150		203766	235020	438786
Test bore	8400	0	8400		7308	0	7308
Drilling:							0
Labour:							0
Skilled	16800	0	16800	0.87	14616	0	14616
Unskilled	7350	0	7350	0.65	4778	0	4778
Sinking	30450	0	30450	0.61	18575	0	18575
Materials	22050	0	22050	0.79	17420	0	17420
Sub-Total	85050	0	85050		62696		62696
Total	383180	235020	618200	0.81	266461	235020	501481

TABLE B.3

Capital Costs STW Diesel (1991 values)

Taka

Item	Financial			Conv'n Factor	Economic		
	Local	Foreign	Total		Local	Foreign	Total
Pump	4850	0	4850	0.62	3007	0	3007
Engine	2100	14000	16100	0.62	1302	14000	15302
Access'	1540	0	1540	0.62	955	0	955
Transport	1000	0	1000	0.87	870	0	870
Sub-Total	9490	14000	23490		6134	14000	20134
Drilling:							
Labour:							
Skilled	800	0	800	0.87	696	0	696
Unskilled	600	0	600	0.65	390	0	390
Screen	2270	3410	5680	0.61	1385	3410	4795
Casing	3500	5250	8750	0.61	2135	5250	7385
Other	900	0	900	0.87	783	0	783
Sub-Total	8070	6660	16730		5389	8660	14049
Total	17560	22660	40220	0.85	11523	22660	34183

TABLE B.4

Capital Costs STW Electric (1991 values)

Item	Financial			Conv'n Factor	Economic		
	Local	Foreign	Total		Local	Foreign	Total
Pump	4850	0	4850	0.62	3007	0	3007
Engine	10500	0	10500	0.62	6510	0	6510
Access'	1485	0	1485	0.62	921	0	921
Transport	1000	0	1000	0.87	870	0	870
Sub-Total	17835	0	17835		11308	0	11308
Drilling:							
Labour:							
Skilled	800	0	800	0.87	696	0	696
Unskilled	600	0	600	0.65	390	0	390
Screen	2270	3410	5680	0.61	1385	3410	4795
Casing	3500	5250	8750	0.61	2135	5250	7385
Other	900	0	900	0.87	783	0	783
Sub-Total	8070	8660	16730		5389	8660	14049
Total	25905	8660	34565	0.73	16697	8660	25357

TABLE B.5

Capital Costs Low Lift Pumps (28 l/s, 1 cusec) (1991 values)

Item	Financial			Conv'n Factor	Economic		
	Local	Foreign	Total		Local	Foreign	Total
Diesel:							
Pump etc	6000	0	6000	0.62	3720	0	3720
Engine	2610	17390	20000	0.62	1618	17390	19008
Access's	4000	0	4000	0.62	2480	0	2480
Total	12610	17390	30000	0.84	7818	17390	25208
Electric:							
Pump etc	6000	0	6000	0.62	3720	0	3720
Engine	15000	0	15000	0.62	9300	0	9300
Access's	4000	0	4000	0.62	2480	0	2480
Power supply	13450	0	13450	.64	8610	0	8610
Total	38450	0	38450	.63	24110	0	24110

TABLE B.6

Capital Costs LLP (54 l/s, 2 cusec) (1991 values)

Taka

Item	Financial			Conv'n Factor	Economic		
	Local	Foreign	Total		Local	Foreign	Total
Electric:							
Pump etc	10000	0	10000	0.62	6200	0	6200
Engine	25000	0	25000	0.62	15500	0	15500
Accessories	5000	0	5000	0.62	3100	0	3100
Power supply	24650	0	24650	0.64	15846	0	15846
Total	64650	0	64650	0.63	40646	0	40646
Diesel:							
Pump etc	1000	0	1000	0.62	6200	0	6200
Engine	3625	31375	35000	0.62	2248	19453	21700
Accessories	5000	0	5000	0.62	3100	0	3100
Total	18625	31375	50000	0.62	11548	19453	31001

Source: Consultants estimates.

Notes : (1) 541/s sufficient for 20 Ha

(2) Costed separately on basis of Tk160000/Km and 0.14Km distribution system costs and Tk2250 connection cost each LLP

Taka

Distribution system	Financial	Conv'n factor	Economic
Capital			
Connection	2250	0.87	1958
Distribution	22400	0.62	13888
Total	24650	0.64	15846

TABLE B.7

DTW Operating Costs Diesel (1991 values)

Taka

Item	Financial			Conv'n Factor	Economic		
	Local	Foreign	Total		Local	Foreign	Total
Operator	10500	0	10500	0.87	9135	0	9135
Repair/parts	4440	2960	7400	0.87	3863	2960	6823
Sub Total	14940	2960	17900		12998	2960	15958
Pumping:							
Fuel	88200	0	88200	0.63	55566	0	55566
Lube	6944	0	6944	0.63	4375	0	4375
Total	110084	2960	113044	0.67	72939	2960	75899



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TABLE B.8

DTW Operating Costs Electric (1991 values)

Taka							
Item	Financial			Conv'n Factor	Economic		
	Local	Foreign	Total		Local	Foreign	Total
Operator	10500	0	10500	0.87	9135	0	9135
Repair/parts	925	925	1850	0.87	805	2960	3765
Sub Total	11425	925	12350		9940	2960	12900
Pumping: Energy	56000	0	56000	1.54	86240	0	86240
Total	67425	925	68350	1.45	96180	2960	99140

TABLE B.9

STW Operating Costs Diesel (1991 values)

Taka							
Item	Financial			Conv'n Factor	Economic		
	Local	Foreign	Total		Local	Foreign	Total
Operator	6350	0	6350	0.87	5525		5525
Repair/parts	1110	740	1850	0.87	966	740	1706
Sub Total	7460	740	8200		6490	740	7230
Pumping:							
Fuel	24955	0	24955	0.63	15722	0	15722
Lube	1820	0	1820	0.63	1147	0	1147
Total	34235	740	34975	0.69	23358	740	24098

TABLE B.10

STW Operating Costs Electric (1991 values)

Taka							
Item	Financial			Conv'n Factor	Economic		
	Local	Foreign	Total		Local	Foreign	Total
Operator	6350	0	6350	0.87	5525		5525
Repair/parts	600	400	1000	0.87	522	400	922
Sub Total	6950	400	7350		6047	400	6447
Pumping: Energy	19400	0	19400	1.54	29876	0	29876
Total	26350	400	26750	1.36	35923	400	36323

TABLE B.11

LLP Operating Costs Diesel (28 l/s, 1 cusec) (1991 values)

Taka

Item	Financial			Conv'n Factor	Economic		
	Local	Foreign	Total		Local	Foreign	Total
Operator	8400	0	8400	0.87	7308	0	7308
Repair parts	1110	740	1850	0.87	966	740	1706
Sub Total	9510	740	10250		8274	740	9014
Pumping:							
Fuel	23520	0	23520	0.63	14818	0	14818
Lube	1680	0	1680	0.63	1058	0	1058
Total	34710	740	35450	0.70	24150	740	24890

TABLE B.12

LLP Operating Costs Electric (28 l/s, 1 cusec) (1991 values)

Taka

Item	Financial			Conv'n Factor	Economic		
	Local	Foreign	Total		Local	Foreign	Total
Operator	8400	0	8400	0.87	7308	0	7308
Repair/parts	500	500	1000	0.87	435	500	935
Sub Total	8900	500	9400		7743	500	8243
Pumping:							
Energy	17500	0	17500	1.54	26950	0	26950
Total	26400	500	26900	1.31	34693	500	35193

TABLE B.13

LLP Operating Costs Electric (54 l/s, 2 cusec) (1991 values)

Taka

Item	Financial			Conv'n Factor	Economic		
	Local	Foreign	Total		Local	Foreign	Total
Electric:							
Operator	9000	0	9000	0.87	7830	0	7830
Repair/pa	900	600	1500	0.87	783	522	1305
Energy	28000	0	28000	1.54	43120	0	43120
Total	37900	600	38500	1.36	51733	522	52255
Tk/Ha			1925				2613
Diesel:							
Operator	9000	0	9000	0.87	7830	0	7830
Repair/pa	1440	960	2400	0.87	1253	835	2088
Energy	40600	0	40600	0.63	25578	0	25578
Total	51040	960	52000	0.68	34661	835	35496
Tk/Ha			2600				1775

Source: Consultants estimates.

Annual Operating Cost 40% Electric/60% Diesel LLP

Taka

Item	100%E/100		Proportion	40%E/60%D	
	Financial	Economic		Financial	Economic
Electric	1925	2613	0.40	770	1045
Diesel	2600	1775	0.60	1560	1065
Total				2330	2110

APPENDIX C

Annual Value of Crop Damage in SWA by Planning Unit.

The tables that follow set out the average proportion by area of major crops damaged over the 19 years 1971 to 1989. The estimated value of these losses is also given in terms of their 1991 economic values (ref. Chapter 2).

LOS

Table : C.1
Southwest Region Average Annual Crop Losses Due to Flooding at 1991 Economic Values

Planning Area : SW 1				Planning Area : SW 2			Planning Area : SW 3		
Crop	1991 Value Tk. '000	Loss %	Loss Value Tk. '000	1991 Value Tk. '000	Loss %	Loss Value Tk. '000	1991 Value Tk. '000	Loss %	Loss Value Tk. '000
Aus L	94857	2.43	2305	14394	2.43	350	20228	3.74	757
Aus M	100633	3.07	3089	190706	3.07	5855	67419	5.06	3411
Aman B	51220	4.32	2213	13108	4.32	566	127302	7.68	9777
Aman TL	116853	2.13	2489	305842	2.13	6514	48422	23.16	11215
Aman TM	305729	1.60	4892	775418	1.60	12407	130211	15.85	20638
Boro L	11142	0.08	9	3871	0.08	3	6159	0.00	0
Boro M	146404	0.44	644	971961	0.44	4277	190831	0.69	1317
Jute	150809	0.84	1267	40566	0.85	345	103986	2.35	2444
Sugarcane	161384	0.53	855	323339	0.53	1714	109271	3.54	3868
TOTAL	1139031	1.56	17763	2639205	1.21	32031	803829	6.80	53427

Planning Area : SW 4				Planning Area : SW 5			Planning Area : SW 6		
Crop	1991 Value Tk. '000	Loss %	Loss Value Tk. '000	1991 Value Tk. '000	Loss %	Loss Value Tk. '000	1991 Value Tk. '000	Loss %	Loss Value Tk. '000
Aus L	9720	3.04	295	12545	3.04	381	5128	3.74	192
Aus M	55242	3.3	1823	19294	3.30	637	17493	5.06	885
Aman B	67550	6.25	4222	55913	6.25	3495	33979	7.68	2310
Aman TL	252716	1.32	3336	42706	1.32	564	12603	23.16	2919
Aman TM	319440	3.4	10861	65640	3.40	2232	34192	15.85	5420
Boro L	5994	0.1	55	4423	0.91	40	1446	0.00	0
Boro M	224209	0.54	1211	54333	0.54	293	48850	0.69	337
Jute	177230	4.06	7196	48454	4.06	1967	26714	2.35	628
Sugarcane	120728	0.25	302	47314	0.25	118	27229	3.54	964
TOTAL	1232829	2.38	29301	350622	2.77	9727	207634	6.88	13655

Planning Area : SW 7				Planning Area : SW 8			Planning Area : SW 9		
Crop	1991 Value Tk. '000	Loss %	Loss Value Tk. '000	1991 Value Tk. '000	Loss %	Loss Value Tk. '000	1991 Value Tk. '000	Loss %	Loss Value Tk. '000
Aus L	3680	3.74	138	32471	3.04	987	13336	3.04	405
Aus M	30619	5.06	1549	64024	3.30	2113	46957	3.30	1550
Aman B	262287	7.68	20144	33637	6.25	2102	37272	6.25	2329
Aman TL	33754	23.16	7817	354992	1.32	4686	232774	1.32	3073
Aman TM	89351	15.85	14162	491706	3.40	16718	228531	3.40	7770
Boro L	19526	0.00	0	2407	0.91	22	823	0.91	7
Boro M	459019	0.69	3167	530788	0.54	2866	252795	0.54	1365
Jute	113988	2.35	2679	128780	4.06	5228	94293	4.06	3828
Sugarcane	97382	3.54	3447	63772	0.25	159	11909	0.25	30
TOTAL	1109606	4.79	53103	1702577	2.05	34881	918690	2.22	20357

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Table : C.1
Southwest Region Average Annual Crop Losses Due to Flooding at 1991 Economic Values

Planning Area : SW 10				Planning Area : SW 11			Planning Area : SW 12		
Crop	1991 Value Tk. '000	Loss %	Loss Value Tk. '000	1991 Value Tk. '000	Loss %	Loss Value Tk. '000	1991 Value Tk. '000	Loss %	Loss Value Tk. '000
Aus L	13899	3.04	423	4792	3.02	150	2092	3.02	63
Aus M	10964	3.30	362	29082	2.21	643	6095	2.21	135
Aman B	100239	6.25	6265	9342	4.73	442	5735	4.73	271
Aman TL	136115	1.32	1797	901514	0.23	2073	135778	0.23	312
Aman TM	99381	3.40	3379	402197	0.24	965	62061	0.24	149
Boro L	15217	0.91	138	7882	0.00	0	904	0.00	0
Boro M	68458	0.54	370	290519	0.32	930	33774	0.32	108
Jute	45131	4.06	1832	78752	1.86	1465	18606	1.86	346
Sugarcane	27439	0.25	69	7606	0.00	0	1991	0.00	0
TOTAL	516843	2.83	14635	1731686	0.39	6668	267036	0.52	1384

Planning Area : SW 13				Planning Area : SW 14		
Crop	1991 Value Tk. '000	Loss %	Loss Value Tk. '000	1991 Value Tk. '000	Loss %	Loss Value Tk. '000
Aus L	5961	3.02	180	3436	3.02	104
Aus M	7505	2.21	166	2093	2.21	46
Aman B	131879	4.73	6238	8988	4.73	425
Aman TL	279951	0.23	644	467782	0.23	1076
Aman TM	152087	0.24	365	154618	0.24	371
Boro L	13453	0.00	0	2719	0.00	0
Boro M	61295	0.32	196	20392	0.32	65
Jute	43143	1.86	802	43490	1.86	809
Sugarcane	40608	0.00	0	5375	0.00	0
TOTAL	735882	1.17	8591	708893	0.41	2896

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Table : C. 2
South Central Region Average Annual Crop Losses Due to Flooding at '91 Economic Values

Planning Area : SC 1				Planning Area : SC 2			Planning Area : SC 3		
Crop	1991 Value Tk. '000	Loss %	Loss Value Tk. '000	1991 Value Tk. '000	Loss %	Loss Value Tk. '000	1991 Value Tk. '000	Loss %	Loss Value Tk. '000
Aus L	6722	3.74	251	-8419	3.74	-315	8094	3.74	303
Aus M	35727	5.06	1808	16770	5.06	849	11609	5.06	587
Aman B	132607	7.68	10184	67985	7.68	5221	67715	7.68	5201
Aman TL	29775	23.16	6896	72741	23.16	16847	51024	23.16	11817
Aman TM	48223	15.85	7643	49528	15.85	7850	66124	15.85	10481
Boro L	18306	0.00	0	6117	0.00	0	8757	0.00	0
Boro M	253100	0.69	1746	147440	0.69	1017	215653	0.69	1488
Jute	104165	2.35	2448	50490	2.35	1187	29013	2.35	682
Sugarcane	113718	3.54	4026	43805	3.54	1551	31827	3.54	1127
TOTAL	742343	4.72	35002	446457	7.66	34207	489816	6.47	31686

Planning Area : SC 4				Planning Area : SC 5			Planning Area : SC 6		
Crop	1991 Value Tk. '000	Loss %	Loss Value Tk. '000	1991 Value Tk. '000	Loss %	Loss Value Tk. '000	1991 Value Tk. '000	Loss %	Loss Value Tk. '000
Aus L	17541	2.49	437	-3285	2.49	-82	-10100	2.49	-251
Aus M	7555	0.43	32	20147	0.43	87	8216	0.43	35
Aman B	111531	5.01	5588	8725	5.01	437	44757	5.01	2242
Aman TL	61251	0.95	582	112174	0.95	1066	92547	0.95	879
Aman TM	60852	3.25	1969	184936	3.25	6010	51657	3.25	1679
Boro L	7000	0.00	0	19495	0.00	0	3519	0.00	0
Boro M	98298	0.15	147	314176	0.15	471	61711	0.15	9
Jute	40307	1.45	584	4919	1.45	71	31278	1.45	454
Sugarcane	36008	0.27	97	10218	0.27	28	28280	0.27	76
TOTAL	440343	2.14	9436	671505	1.20	8088	311865	1.67	5123

Planning Area : SC 7				Planning Area : SC 8			Planning Area : SC 9		
Crop	1991 Value Tk. '000	Loss %	Loss Value Tk. '000	1991 Value Tk. '000	Loss %	Loss Value Tk. '000	1991 Value Tk. '000	Loss %	Loss Value Tk. '000
Aus L	207	2.49	5	-63441	1.63	-1034	-24704	1.63	-403
Aus M	42565	0.43	183	15179	2.70	410	2485	2.70	67
Aman B	437	5.01	22	3237	0.00	0	749	0.00	0
Aman TL	136923	0.95	1301	947882	0.00	0	320458	0.00	0
Aman TM	291961	3.25	9489	145026	0.00	0	49066	0.00	0
Boro L	22284	0.00	0	6539	0.00	0	90	0.00	0
Boro M	276712	0.15	415	159917	0.00	0	2585	0.00	0
Jute	1550	1.45	22	17832	0.00	0	5520	0.00	0
Sugarcane	7638	0.27	21	12351	0.67	1071	3064	0.67	17
TOTAL	780277	1.47	11458	1244522	0.04	447	359313	-0.09	-319

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Table : C.2
South Central Region Average Annual Crop Losses Due to Flooding at '91 Economic Values

Planning Area : SC 10				Planning Area : SC 11			Planning Area : SC 12		
Crop	1991 Value Tk. '000	Loss %	Loss Value Tk. '000	1991 Value Tk. '000	Loss %	Loss Value Tk. '000	1991 Value Tk. '000	Loss %	Loss Value Tk. '000
Aus L	-21553	1.63	-351	-7738	2.49	-193	-2331	1.63	-38
Aus M	3810	2.70	103	42212	0.43	182	4093	2.70	111
Aman B	845	0.00	0	823	5.01	41	832	0.00	0
Aman TL	185231	0.00	0	214111	0.95	2034	220129	0.00	0
Aman TM	81823	0.00	0	237591	3.25	7722	57607	0.00	0
Boro L	83	0.00	0	10851	0.00	0	474	0.00	0
Boro M	5145	0.67	34	178246	0.15	267	8005	0.67	0
Jute	3337	0.00	0	3233	1.45	47	3627	0.00	0
Sugarcane	3152	0.00	0	8122	0.27	22	3114	0.00	54
TOTAL	261873	0.08	-214	687451	1.47	10122	295550	0.04	127

Planning Area : SC 13			
Crop	1991 Value Tk. '000	Loss %	Loss Value Tk. '000
Aus L	-17951	1.63	-293
Aus M	1582	2.7	43
Aman B	339	0.00	0
Aman TL	259385	0.00	0
Aman TM	21047.00	0.00	0
Boro L	77	0.00	0
Boro M	2026	0.67	14
Jute	4683	0.00	0
Sugarcane	2582	0.00	0
TOTAL	273770	-0.09	-236

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APPENDIX D

Crop Labour Inputs

1. Labour Inputs

Table D.1 sets out the labour inputs by crop for each of SWA's 27 Planning Units. The figures have been derived from a number of sources and include data from MPO, and DAE at the Thana level and BARI Farming System Research. They take into account current cultivation practices and yield levels. Within each crop the differences between flood classes and PUs mainly reflect the related yield variations (Ref Chapters 3 and 4 of this Volume).

2. Total Labour Requirements

Estimated Total labour requirements in each PU are presented in Table D.2. Details are given by crop or crop group, flood category and whether or not irrigated.

Differences in inputs for crop groups - pulses, oilseeds, spices and minor crops - reflect differences in the mix of these classes of crops grown in each PU. Further details are given in Chapters 3 and 4 and Appendix E.

Table : D.1
Unit Area Crop Labour Inputs by SWA Planning Unit (person days/hectare)

Crop	SW 1		SW 2		SW 3		SW 4		SW 5		SW 6		SW 7	
	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed
Kharif														
B Aus	130	130	130	130	125	125	130	130	130	130	125	125	125	125
M Aus	180	180	180	180	190	190	180	180	180	180	190	190	190	190
B Aman	102	102	102	102	102	102	102	102	102	102	102	102	102	102
L T Aman	125	125	125	125	115	115	125	125	125	125	115	115	115	115
M Aman	160	160	160	160	160	160	160	160	160	160	160	160	160	160
Jute	0	180	0	180	0	180	0	180	0	180	0	180	0	180
Sugarcane	283	243	283	243	283	243	183	243	283	243	283	243	283	243
Rabi														
L Boro	180	180	180	180	167	167	180	180	180	180	167	167	167	167
M Boro	188	188	188	188	206	206	188	188	188	188	206	206	206	206
M Wheat	121	107	121	107	121	107	121	107	121	107	121	107	121	107
Potato	231	166	206	163	185	173	231	166	203	154	231	155	231	155
Pulses	70	70	60	60	74	74	73	73	60	60	56	56	59	59
Oilseeds	82	82	82	82	82	82	82	82	82	82	82	82	82	82
Spices	195	195	195	195	193	193	189	189	189	189	189	189	195	195
Minor crops	231	166	206	163	185	173	231	166	203	154	231	155	231	155
Orchards	231	166	206	163	185	173	231	166	203	154	231	155	231	155

Crop	SW 8		SW 9		SW 10		SW 11		SW 12		SW 13		SW 14	
	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed
Kharif														
B Aus	130	130	130	130	130	130	130	130	130	130	130	130	130	130
M Aus	180	180	180	180	180	180	180	180	180	180	180	180	180	180
B Aman	102	102	102	102	102	102	102	102	102	102	102	102	102	102
L T Aman	125	125	125	125	125	125	125	125	125	125	125	125	125	125
M Aman	160	160	160	160	160	160	167	167	167	167	167	167	167	167
Jute	0	180	0	180	0	180	0	180	0	180	0	180	0	180
Sugarcane	283	243	283	243	283	243	283	243	283	243	283	243	283	243
Rabi														
L Boro	180	180	180	180	180	180	167	167	167	167	167	167	167	167
M Boro	188	188	188	188	188	188	188	188	188	188	188	188	188	188
M Wheat	121	107	121	107	121	107	121	107	121	107	121	107	121	107
Potato	231	152	231	151	208	152	231	177	213	151	203	175	231	154
Pulses	72	72	70	70	56	56	59	59	63	63	52	52	63	63
Oilseeds	82	82	82	82	109	109	82	82	128	128	106	106	102	102
Spices	188	188	189	189	188	188	195	195	185	185	180	180	183	183
Minor crops	231	152	231	151	208	152	231	177	213	151	203	175	231	154
Orchards	231	152	231	151	208	152	231	177	213	151	203	175	231	154

[wkin/sw(tab-d1)]

Table : D.1
Unit Area Crop Labour Inputs by SWA Planning Unit (person days/hectare)

Crop	SC 1		SC 2		SC 3		SC 4		SC 5		SC 6		SC 7	
	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed
Kharif														
B Aus	125	125	125	125	125	125	130	130	130	130	130	130	130	130
M Aus	190	190	190	190	190	190	190	190	190	190	190	190	190	190
B Aman	102	102	102	102	102	102	102	102	102	102	102	102	102	102
L T Aman	115	115	115	115	115	115	125	125	125	125	125	125	125	125
M Aman	160	160	160	160	160	160	160	160	160	160	160	160	160	160
Jute	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sugarcane	283	243	283	243	283	243	283	243	183	243	283	243	283	243
Rabi														
L Boro	167	167	167	167	167	167	167	167	167	167	167	167	167	167
M Boro	206	206	206	206	206	206	188	188	188	188	188	188	188	188
M Wheat	121	107	121	107	121	107	121	107	121	107	121	107	121	107
Potato	185	155	185	155	208	155	185	187	231	155	185	155	185	155
Pulses	63	63	54	54	57	57	55	55	47	47	47	47	51	51
Oilseeds	102	102	82	82	82	82	82	82	82	82	77	77	78	78
Spices	195	195	180	180	180	180	180	108	180	180	180	180	180	180
Minor crops	185	155	185	155	208	155	185	187	231	155	185	155	185	155
Orchards	185	155	185	155	208	155	185	187	231	155	185	155	185	155

Crop	SC 8		SC 9		SC 10		SC 11		SC 12		SC 13	
	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed
Kharif												
B Aus	125	125	125	125	125	125	130	125	125	125	125	125
M Aus	170	170	170	170	170	170	180	170	170	170	170	170
B Aman	102	102	102	102	102	102	102	102	102	102	102	102
L T Aman	125	125	125	125	125	125	125	125	125	125	125	125
M Aman	160	160	160	160	160	160	160	160	160	160	160	160
Jute	0	0	0	0	0	0	0	0	0	0	0	0
Sugarcane	283	243	283	243	283	243	283	243	283	243	283	243
Rabi												
L Boro	148	148	148	148	148	148	167	148	148	148	148	148
M Boro	163	163	163	163	163	163	188	163	163	163	163	163
M Wheat	121	107	121	107	121	107	121	107	121	107	121	107
Potato	185	155	185	155	213	155	185	155	185	155	231	155
Pulses	53	53	57	57	47	47	47	47	47	47	54	54
Oilseeds	119	119	108	108	112	112	82	82	82	82	119	119
Spices	180	180	180	180	180	180	180	180	180	180	180	180
Minor crops	185	155	185	155	213	155	185	155	185	155	231	155
Orchards	185	155	185	155	213	155	185	155	185	155	231	155

U2

Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

SWCAR-3C.wk1

CROP LABOUR INPUT BY PLANNING UNIT (person day)

24-Sep-92

(Crop Areas File : SWSCAR-3.wk1)

SW1	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	1	0	0	4,746,785	3,711,063	1,775,714	0	0	10,233,562	10,233,562
M Aus	254,205	1,578,828	0	0	0	0	0	0	2,433,031	0	2,433,031
B Aman	0	1	0	0	0	8,526	1,340,694	143,490	0	1,492,710	1,492,710
L T Aman	21,987	2,057,064	22,085	0	1,191	8,707	0	0	2,110,076	9,898	2,119,973
M Aman	2,063,109	1,211,365	0	0	734,022	184,356	0	0	3,280,473	918,378	4,198,852
Jute	0	1	0	0	1,080,789	1,111,363	8,548	0	0	2,200,700	2,200,700
Sugarcane	70,135	276,962	0	0	248,419	315,772	0	0	984,097	564,192	1,548,289
Rabi											
L Boro	0	1	0	60,801	0	0	0	147,029	60,801	147,029	207,830
M Boro	458,086	1,383,482	193,870	814	247,999	0	0	0	2,034,253	247,999	2,282,251
M Wheat	851,036	1,029,638	179,945	0	47,049	386,470	0	31,013	2,102,619	464,532	2,567,151
Potato	0	54,739	11,195	0	80,898	0	34,565	8,748	65,934	124,211	190,145
Pulses	117,063	22,642	10,178	268	341,913	578,516	245,840	29,140	150,151	1,195,409	1,345,560
Oilseeds	78,929	173,131	0	314	220,244	79,632	109,454	34,836	252,374	444,167	696,541
Spices	72,387	9,011	0	0	85,744	183,936	0	0	81,398	269,680	351,078
Minor crops	374,459	46,255	0	0	0	839,725	0	0	420,714	839,725	1,260,439
Orchards	211,714	0	0	0	155,472	0	0	0	210,714	155,472	366,186
Totals	5,854,110	7,843,056	427,273	62,197	7,990,526	7,408,066	3,514,816	394,256	14,186,636	19,307,664	33,494,300
Total NCA	18,882	25,237	2,567	398	44,924	32,835	21,772	2,797	45,083	102,328	147,411
person-day/ha(NCA)	347	311	166	156	178	226	161	141	315	189	227

SW2	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	401,236	732,038	419,644	0	0	1,552,918	1,552,918
M Aus	1,282,014	3,322,569	0	0	911	5,252	0	0	4,604,583	6,163	4,610,746
B Aman	0	0	0	0	0	63,702	198,023	64,389	0	326,113	326,113
L T Aman	789,897	3,948,344	72,491	0	8,404	56,602	74	0	4,811,232	65,080	4,876,313
M Aman	7,409,380	2,848,725	0	0	188,366	203,049	0	0	10,258,105	391,415	10,649,520
Jute	0	0	0	0	180,957	354,046	56,966	0	0	591,969	591,969
Sugarcane	2,313,117	329,716	0	0	217,743	66,483	0	0	2,648,833	284,226	2,933,059
Rabi											
L Boro	0	0	0	70,699	0	0	0	1,500	70,699	1,500	72,199
M Boro	7,473,047	5,245,237	661,707	30,760	528	0	0	0	13,410,751	528	13,411,279
M Wheat	1,095,499	1,048,758	274,414	0	1,724	104,929	4,771	196	2,418,671	111,620	2,530,290
Potato	0	3,861	170	0	45,898	61	72	18	4,031	46,050	50,081
Pulses	2,229	727,666	215	3	22,196	158,345	69,500	7,875	730,133	257,916	988,050
Oilseeds	156,224	666,266	130	4	25,819	24,158	45,146	1,890	822,625	97,013	919,638
Spices	491,713	339,554	0	0	2,263	6,154	1,143	0	831,267	9,560	840,827
Minor crops	782,571	1,560,695	889	0	1,739	34,498	956	0	2,344,154	37,192	2,381,346
Orchards	2,586	0	0	0	59,499	0	0	0	2,586	59,499	62,086
Totals	21,804,277	20,041,911	1,010,017	101,466	1,157,281	1,809,318	796,295	75,869	42,957,671	3,838,763	46,796,434
Total NCA	63,375	59,343	5,799	640	6,155	9,122	6,130	1,111	129,156	22,519	151,675
person-day/ha(NCA)	344	338	174	159	188	198	130	68	333	170	309

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Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

SWCAR-3C.wk1

CROP LABOUR INPUT BY PLANNING UNIT (person day)

24-Sep-92

(Crop Areas File : SWSCAR-3.wk1)

SW3	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	1,980,482	2,889,652	522,918	0	0	5,393,051	5,393,051
M Aus	249,326	836,740	0	0	46,333	250,928	0	0	1,086,066	297,261	1,383,327
B Aman	0	0	0	0	0	635,046	2,184,420	718,641	0	3,538,107	3,538,107
L T Aman	27,623	866,214	47,072	0	28,142	199,584	0	0	940,909	227,726	1,168,634
M Aman	462,516	595,633	0	0	413,667	425,606	0	0	1,058,149	839,274	1,897,422
Jute	0	0	0	0	421,021	843,089	352,253	0	0	1,616,364	1,616,364
Sugarcane	17,963	366	0	0	761,902	344,879	0	0	18,849	1,106,781	1,125,630
Rabi											
L Borc	0	0	0	96,906	0	0	0	76,829	96,906	76,829	173,735
M Borc	347,121	1,356,376	649,629	9,322	0	0	0	0	2,362,448	0	2,362,448
M Wheat	163,812	492,702	105,633	0	74,210	443,163	218,120	0	762,147	735,493	1,497,640
Potato	1,123	22,023	0	0	39,636	4,102	3,710	0	23,147	47,448	70,595
Pulses	7,521	36,101	2,754	0	243,105	998,865	394,307	31,654	46,376	1,667,931	1,714,307
Oilseeds	4,521	36,567	3,051	200	117,989	494,112	217,553	13,263	46,339	842,917	889,256
Spices	15,301	41,136	0	0	99,631	264,042	58,570	0	57,497	422,243	479,740
Minor crops	13,800	136,330	6,166	0	82,730	328,311	48,790	0	156,296	459,832	616,127
Orchards	0	0	0	0	245,787	0	0	0	0	245,787	245,787
Totals	1,313,527	4,420,868	814,304	106,428	4,554,636	8,121,379	4,000,642	840,387	6,655,127	17,517,043	24,172,171
Total NCA	3,426	12,574	4,093	713	23,521	45,728	28,287	7,716	20,807	105,252	126,059
person-day/ha(NCA)	383	352	199	149	194	178	141	109	320	166	192

SW4	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	3,713,374	2,086,696	517,752	0	0	6,317,822	6,317,822
M Aus	604,250	825,015	0	0	57,060	0	0	0	1,429,265	57,060	1,486,325
B Aman	0	0	0	0	0	451,824	1,074,506	351,087	0	1,877,416	1,877,416
L T Aman	544,995	1,378,525	46,348	0	987,916	1,307,423	56,203	0	1,969,868	2,351,541	4,321,409
M Aman	1,348,379	1,146,859	0	0	1,562,454	317,747	0	0	3,095,238	1,880,201	4,975,439
Jute	0	0	0	0	1,405,344	1,162,498	187,029	0	0	2,754,870	2,754,870
Sugarcane	372,387	86,137	0	0	647,092	92,329	0	0	458,524	739,421	1,197,945
Rabi											
L Borc	0	0	0	84,324	0	0	0	37,034	84,324	37,034	121,357
M Borc	1,789,850	2,075,954	509,391	47,787	4,666	0	0	0	4,422,982	4,666	4,427,648
M Wheat	520,949	635,721	63,994	0	53,946	162,810	299,893	93,826	1,220,664	610,474	1,831,139
Potato	20,097	89,356	8,395	0	68,528	42,026	650	165	117,848	111,369	229,217
Pulses	92,556	72,867	35,799	6	987,949	473,332	253,323	36,603	201,229	1,751,206	1,952,435
Oilseeds	56,853	84,055	17,824	7	407,757	467,772	148,746	11,557	158,740	1,035,832	1,194,572
Spices	59,252	56,002	0	0	73,997	51,449	0	0	115,254	125,446	240,700
Minor crops	298,274	537,228	17,517	0	116,240	182,364	0	0	853,019	298,605	1,151,624
Orchards	4,884	0	0	0	398,825	0	0	0	4,884	398,825	403,709
Totals	6,312,728	6,987,718	699,268	132,124	10,485,147	6,798,269	2,538,101	530,271	14,131,839	20,351,788	34,483,628
Total NCA	18,531	20,783	3,708	831	55,020	34,309	16,266	4,942	43,852	110,537	154,390
person-day/ha(NCA)	341	336	189	159	191	198	156	107	322	184	223

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Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

SWCAR-3C.wk1

CROP LABOUR INPUT BY PLANNING UNIT (person day)

24-Sep-92

(Crop Areas File : SWSCAR-3.wk1)

SW5	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
<i>Kharif</i>											
B Aus	0	0	0	0	972,240	1,253,797	245,036	0	0	2,471,073	2,471,073
M Aus	115,174	225,699	0	0	17,296	90,956	0	0	410,873	108,251	519,124
B Aman	0	0	0	0	0	274,146	961,922	317,913	0	1,553,981	1,553,981
L T Aman	36,513	364,097	18,799	0	74,897	209,977	25,492	0	419,409	310,366	729,774
M Aman	249,445	248,011	0	0	260,723	198,323	0	0	497,456	459,046	956,502
Jute	0	0	0	0	227,808	376,318	149,037	0	0	753,164	753,164
Sugarcane	26,066	5,173	0	0	321,520	132,193	0	0	31,239	453,713	484,952
<i>Rabi</i>											
L Boro	0	0	0	48,490	0	0	0	41,065	48,490	41,065	89,556
M Boro	190,183	483,868	210,104	21,802	0	0	0	0	905,957	0	905,957
M Wheat	85,953	193,624	40,647	0	29,482	170,326	91,057	4,888	320,223	295,754	615,977
Potato	1,008	10,977	821	0	22,569	2,102	18,584	0	12,806	43,254	56,060
Pulses	4,080	11,423	927	0	113,549	319,626	138,825	13,787	16,431	585,787	602,218
Oilseeds	6,448	18,479	3,063	0	65,999	209,351	106,916	10,515	27,990	392,782	420,772
Spices	7,885	11,235	0	0	37,862	99,570	19,188	0	19,120	156,620	175,740
Minor crops	18,326	80,665	3,947	0	32,942	117,786	18,732	0	102,938	169,460	272,398
Orchards	0	0	0	0	110,853	0	0	0	0	110,853	110,853
Totals	741,080	1,723,250	278,308	70,293	2,287,741	3,454,471	1,774,789	388,168	2,812,931	7,905,169	10,718,100
Total NCA	2,045	5,009	1,504	436	11,864	19,437	13,009	3,600	8,993	47,910	56,903
person-day/ha(NCA)	362	344	185	161	193	178	136	108	313	165	188

SW6	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
<i>Kharif</i>											
B Aus	0	0	0	0	515,617	734,141	128,466	0	0	1,378,224	1,378,224
M Aus	65,370	215,239	0	0	11,864	66,461	0	0	280,609	78,324	358,933
B Aman	0	0	0	0	0	165,347	562,679	216,348	0	944,374	944,374
L T Aman	7,111	225,380	11,435	0	6,931	53,302	0	0	243,926	60,233	304,159
M Aman	118,548	157,027	0	0	108,240	114,436	0	0	275,575	222,676	498,251
Jute	0	0	0	0	109,584	214,531	91,126	0	0	415,240	415,240
Sugarcane	3,013	83	0	0	192,605	85,698	0	0	3,096	278,303	281,399
<i>Rabi</i>											
L Boro	0	0	0	24,812	0	0	0	15,978	24,812	15,978	40,790
M Boro	87,144	352,575	152,675	12,362	0	0	0	0	604,757	0	604,757
M Wheat	43,760	132,870	28,458	0	19,504	114,323	52,253	4,775	205,087	190,855	395,942
Potato	0	7,447	0	0	9,820	397	680	0	7,447	10,897	18,344
Pulses	1,438	5,589	0	0	47,655	190,145	74,084	8,196	7,027	320,079	327,106
Oilseeds	1,532	8,966	0	0	30,198	123,715	54,957	6,599	10,397	215,469	225,867
Spices	3,356	6,176	0	0	23,285	66,595	13,600	0	9,532	103,479	113,011
Minor crops	4,176	45,122	2,085	0	19,096	73,976	11,494	0	51,383	104,565	155,948
Orchards	0	0	0	0	57,093	0	0	0	0	57,093	57,093
Totals	335,447	1,156,374	194,653	37,175	1,151,491	2,003,066	989,338	251,897	1,723,648	4,395,792	6,119,440
Total NCA	874	3,267	994	232	6,083	11,713	7,203	2,307	5,367	27,306	32,673
person-day/ha(NCA)	384	354	196	160	189	171	137	109	321	161	187

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Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

SWCAR-3C.wk1

CROP LABOUR INPUT BY PLANNING UNIT (person day)

24-Sep-92

(Crop Areas File : SWSCAR-3.wk1)

SW7	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	996,910	2,502,937	3,071,437	0	0	6,571,283	6,571,283
M Aus	61,881	330,426	0	0	69,673	103,667	0	0	392,307	173,340	565,647
B Aman	0	0	0	0	0	192,274	3,313,914	2,926,433	0	6,432,620	6,432,620
L T Aman	5,814	503,796	153,802	0	19,028	21,406	0	0	663,411	40,435	703,846
M Aman	144,938	307,407	0	0	340,742	376,815	0	0	452,345	717,557	1,169,902
Jute	0	0	0	0	235,829	1,044,869	491,139	0	0	1,771,836	1,771,836
Sugarcane	14,722	0	0	0	632,484	359,710	0	0	14,722	992,194	1,006,916
Rabi											
L Boro	0	0	0	46,329	0	0	0	469,621	46,329	469,621	515,950
M Boro	141,746	1,088,014	2,735,185	1,118,812	0	0	0	0	5,083,758	0	5,083,758
M Wheat	16,602	50,628	10,839	0	39,033	479,246	191,556	428,674	78,068	1,138,509	1,216,577
Potato	10,011	2,843	0	0	42,741	62,932	85,770	0	12,854	191,443	204,297
Pulses	3,455	41,818	15,670	0	119,887	674,912	651,165	282,887	60,943	1,728,850	1,789,793
Oilseeds	14,323	106,044	21,779	1,429	113,537	323,521	510,580	313,576	143,574	1,261,213	1,404,788
Spices	20,288	126,518	0	0	154,900	219,931	106,043	0	146,806	480,874	627,680
Minor crops	1,509	17,057	796	0	79,335	415,948	90,118	0	19,362	585,401	604,762
Orchards	0	0	0	0	192,717	0	0	0	0	192,717	192,717
Totals	435,288	2,574,550	2,938,070	1,166,570	3,036,815	6,778,167	8,511,721	4,421,189	7,114,479	22,747,893	29,862,372
Total NCA	1,053	7,181	13,374	5,862	14,514	33,765	38,442	34,362	27,470	121,083	148,553
person-day/ha(NCA)	413	359	220	199	209	201	221	129	259	188	201

SW8	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	2,491,200	811,346	200,582	0	0	3,503,128	3,503,128
M Aus	832,033	892,624	0	0	67,630	0	0	0	1,724,658	67,630	1,792,287
B Aman	0	0	0	0	0	94,625	554,210	187,996	0	836,832	836,832
L T Aman	521,993	2,275,877	100,643	0	1,250,426	1,494,751	16,261	0	2,898,513	2,761,438	5,659,951
M Aman	3,044,433	1,774,273	0	0	894,477	390,229	0	0	4,818,707	1,284,706	6,103,413
Jute	0	0	0	0	1,255,027	569,345	54,866	0	0	1,879,238	1,879,238
Sugarcane	319,129	78,913	0	0	167,133	25,744	0	0	398,042	192,877	590,919
Rabi											
L Boro	0	0	0	95,356	0	0	5,747	40,998	95,356	46,746	142,101
M Boro	2,756,056	4,083,436	1,329,960	100,774	646	0	0	0	8,270,225	646	8,270,871
M Wheat	663,981	607,547	97,741	0	111,871	179,519	68,648	14,182	1,369,270	374,220	1,743,490
Potato	79,768	183,477	18,627	0	3,564	19,539	82	21	281,872	23,206	305,078
Pulses	113,219	94,789	75,875	1	732,159	176,915	88,291	11,888	283,884	1,009,252	1,293,136
Oilseeds	186,693	352,892	45,129	2	397,036	306,951	78,580	6,116	584,716	788,683	1,373,398
Spices	59,267	51,523	0	0	67,622	30,406	0	0	110,790	98,028	208,818
Minor crops	294,538	611,694	19,410	0	111,608	109,839	0	0	925,642	221,448	1,147,089
Orchards	1,064	0	0	0	197,534	0	0	0	1,064	197,534	198,598
Totals	8,872,175	11,007,045	1,687,385	196,133	7,747,933	4,209,210	1,067,267	261,201	21,762,738	13,285,611	35,048,349
Total NCA	25,839	32,103	8,051	1,225	38,728	21,684	7,275	2,141	67,219	69,829	137,047
person-day/ha(NCA)	343	343	210	160	200	194	147	122	324	190	256

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Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

SWCAR-3C.wk1

CROP LABOUR INPUT BY PLANNING UNIT (person day)

24-Sep-92

(Crop Areas File : SWSCAR-3.wk1)

SW9	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	1,514,276	645,405	467,152	0	0	2,626,833	2,626,833
M Aus	514,983	744,374	0	0	4,052	0	0	0	1,259,356	4,052	1,263,409
B Aman	0	0	0	0	0	10,655	689,866	335,374	0	1,035,895	1,035,895
L T Aman	203,921	1,226,742	90,163	0	1,384,546	1,008,706	63,603	0	1,520,826	2,456,855	3,977,681
M Aman	1,203,969	870,898	0	0	903,437	351,836	0	0	2,074,867	1,255,273	3,330,140
Jute	0	0	0	0	896,252	437,561	131,881	0	0	1,465,694	1,465,694
Sugarcane	13,737	3,997	0	0	99,495	3,806	0	0	17,734	103,302	121,035
Rabi											
L Boro	0	0	0	16,758	0	0	1,264	15,400	16,758	16,664	33,422
M Boro	1,016,079	1,903,083	1,139,146	156,806	0	0	0	0	4,215,113	0	4,215,113
M Wheat	361,561	413,429	116,527	0	48,805	69,722	35,342	5,724	891,617	159,593	1,051,210
Potato	43,726	140,154	16,662	0	3,056	6,821	12,065	0	200,542	21,942	222,484
Pulses	22,895	32,993	49,556	0	412,590	49,943	150,121	103,500	105,443	716,154	821,597
Oilseeds	142,695	201,655	42,990	0	257,921	36,330	113,487	19,909	387,341	427,648	814,988
Spices	8,869	2,669	0	0	117,574	37,676	14,197	0	11,538	169,446	180,984
Minor crops	170,362	463,530	25,809	0	64,252	62,549	2,011	0	659,701	128,812	788,513
Orchards	0	0	0	0	198,270	0	0	0	0	198,270	198,270
Totals	3,702,896	6,003,523	1,480,853	173,564	5,904,527	2,721,010	1,680,989	479,907	11,360,836	10,786,433	22,147,269
Total NCA	9,786	16,654	7,213	1,060	27,010	11,661	9,304	4,067	34,713	52,042	86,755
person-day/ha(NCA)	378	360	205	164	219	233	181	118	327	207	255

SW10	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	923,639	891,630	922,433	0	0	2,737,702	2,737,702
M Aus	194,415	134,188	0	0	17,030	2,122	0	0	328,602	19,153	347,755
B Aman	0	0	0	0	0	177,414	2,082,250	526,276	0	2,785,940	2,785,940
L T Aman	73,295	193,929	35,877	0	461,788	1,200,086	360,988	0	303,101	2,022,862	2,325,964
M Aman	300,075	200,989	0	0	474,340	325,822	0	0	501,064	800,162	1,301,226
Jute	0	0	0	0	233,584	280,643	187,297	0	0	701,524	701,524
Sugarcane	40,866	17,203	0	0	149,945	69,058	0	0	58,070	219,002	277,072
Rabi											
L Boro	0	0	0	136,874	0	0	761	320,922	136,874	321,684	458,557
M Boro	198,669	294,118	462,592	186,098	0	0	0	0	1,141,477	0	1,141,477
M Wheat	134,554	92,718	39,068	0	15,466	29,710	16,146	3,066	266,340	64,387	330,727
Potato	8,600	8,791	5,923	0	74,197	1,943	290,414	0	23,314	366,553	389,867
Pulses	6,823	5,902	2,252	0	114,799	103,029	285,734	54,521	14,977	558,083	573,060
Oilseeds	29,947	67,850	28,866	0	198,131	279,728	547,742	112,833	126,663	1,138,434	1,265,097
Spices	7,380	11,524	0	0	16,756	28,034	505	0	18,904	45,295	64,199
Minor crops	22,734	115,897	11,470	0	39,819	112,749	48,853	0	150,102	201,421	351,522
Orchards	0	0	0	0	198,903	0	0	0	0	198,903	198,903
Totals	1,017,358	1,143,111	586,048	322,971	2,918,397	3,501,968	4,743,122	1,017,619	3,069,488	12,181,105	15,250,593
Total NCA	2,709	3,160	2,870	1,946	13,286	16,233	33,732	8,371	10,685	71,621	82,306
person-day/ha(NCA)	376	362	204	166	220	216	141	122	287	170	185

Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

24-Sep-92

SWCAR-3C.wk1

CROP LABOUR INPUT BY PLANNING UNIT (person day) (Crop Areas File : SWSCAR-3.wk1)

SW11	IRRIGATED				NON-IRRIGATED				Totals		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	187,424	772,320	19,508	0	0	979,252	979,252
M Aus	86,796	695,680	0	0	0	0	0	0	782,477	0	782,477
B Aman	0	0	0	0	0	0	301,019	9,381	0	310,400	310,400
L T Aman	46,288	1,796,457	9,422	0	1,642,337	14,122,545	97,475	0	1,842,166	15,862,356	17,704,523
M Aman	315,963	1,598,500	0	0	683,083	2,456,395	0	0	1,914,463	3,139,478	5,053,941
Jute	0	0	0	0	135,446	1,062,876	25,807	0	0	1,224,129	1,224,129
Sugarcane	9,912	0	0	0	69,973	0	0	0	9,912	69,973	79,885
Rabi											
L Boro	0	0	0	127,758	0	0	94,591	0	127,758	94,591	222,349
M Boro	310,672	3,797,353	132,568	14,774	0	0	0	0	4,255,366	0	4,255,366
M Wheat	70,022	411,197	4,912	0	2,782	3,913	84	114	486,130	6,894	493,024
Potato	2,684	60,573	1,741	0	0	259,709	0	0	64,998	259,709	324,707
Pulses	66	104	1,936	0	114,210	691,839	16,999	2,112	2,106	825,160	827,266
Oilseeds	9,494	14,566	2,626	0	191,623	1,442,171	35,076	3,044	26,686	1,671,914	1,698,600
Spices	3,442	0	0	0	57,899	286,507	38	0	3,442	344,444	347,886
Minor crops	12,260	19,086	794	0	52,451	779,801	0	0	32,140	832,252	864,391
Orchards	0	0	0	0	448,942	0	0	0	0	448,942	448,942
Totals	867,599	8,383,515	153,998	142,533	3,586,169	21,878,075	590,598	14,650	9,547,645	26,069,492	35,617,137
Total NCA	2,332	24,175	754	970	28,766	146,744	7,100	316	28,231	182,926	211,157
person-day/ha(NCA)	372	347	204	147	125	149	83	46	338	143	169

SW12	IRRIGATED				NON-IRRIGATED				Totals		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	149,060	184,095	78,904	0	0	412,059	412,059
M Aus	48,011	115,993	0	0	0	0	0	0	164,004	0	164,004
B Aman	0	0	0	0	0	795	138,100	51,661	0	190,557	190,557
L T Aman	20,789	187,390	7,478	0	348,237	2,079,030	23,577	0	215,657	2,450,844	2,666,501
M Aman	71,286	168,094	0	0	163,618	376,852	0	0	239,379	540,471	779,850
Jute	0	0	0	0	65,895	198,033	25,282	0	0	289,210	289,210
Sugarcane	889	105	0	0	19,373	316	0	0	993	19,689	20,682
Rabi											
L Boro	0	0	0	10,705	0	0	13,294	1,500	10,705	14,795	25,499
M Boro	54,778	336,235	89,167	14,517	0	0	0	0	494,698	0	494,698
M Wheat	26,944	61,238	12,250	0	0	0	5,496	617	100,431	6,113	106,545
Potato	2,112	12,940	1,274	0	381	31,104	1,505	0	16,327	32,990	49,316
Pulses	2,430	3,828	3,416	0	29,447	108,824	24,302	15,470	9,674	178,042	187,716
Oilseeds	10,789	11,725	3,785	0	67,637	317,559	35,486	5,000	26,299	425,682	451,981
Spices	1,157	68	0	0	17,877	42,085	2,376	0	1,226	62,338	63,563
Minor crops	11,690	36,033	2,414	0	8,913	98,525	251	0	50,137	107,688	157,826
Orchards	0	0	0	0	74,221	0	0	0	0	74,221	74,221
Totals	250,874	933,649	119,784	25,222	944,659	3,437,218	348,573	74,248	1,329,530	4,804,698	6,134,228
Total NCA	626	2,603	598	162	5,861	21,706	2,445	659	3,989	30,671	34,659
person-day/ha(NCA)	401	359	200	156	161	158	143	113	333	157	177

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Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

SWCAR-3.wk1

CROP LABOUR INPUT BY PLANNING UNIT (person day)

24-Sep-92

(Crop Areas File : SWSCAR-3.wk1)

SW13	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	552,565	2,012,286	1,309,970	0	0	3,874,820	3,874,820
M Aus	74,237	83,136	0	0	17,403	27,182	0	0	157,343	44,585	201,928
B Aman	0	0	0	0	0	462,425	1,910,254	1,292,618	0	3,665,297	3,665,297
L T Aman	23,517	187,421	40,242	0	366,739	3,947,545	211,441	6,946	251,180	4,532,671	4,783,850
M Aman	177,343	187,452	0	0	486,346	1,115,647	0	3,712	305,395	1,605,705	1,911,100
Jute	0	0	0	0	84,831	389,363	196,425	0	0	670,618	670,618
Sugarcane	3,296	8,715	0	0	203,482	195,638	0	0	18,011	399,120	417,131
Rabi											
L Boro	0	153	56,805	109,481	0	0	33	233,286	166,439	233,319	399,759
M Boro	80,911	356,305	506,682	266,549	0	0	0	0	1,210,448	0	1,210,448
M Wheat	52,465	50,211	16,816	0	10,390	201,515	3,922	161,509	117,491	377,337	494,828
Potato	3,222	10,093	3,307	0	105,230	256,535	181,195	0	16,622	542,961	559,583
Pulses	56	193	0	0	54,815	567,231	272,281	110,155	248	1,004,482	1,004,730
Oilseeds	14,293	47,419	13,524	0	117,943	845,022	499,392	200,492	75,237	1,662,849	1,738,085
Spices	2,143	8,097	0	0	37,731	137,240	16,084	0	10,240	191,055	201,295
Minor crops	6,397	87,877	5,783	0	41,752	226,725	53,484	0	100,057	321,961	422,019
Orchards	0	0	0	0	419,636	0	0	0	0	419,636	419,636
Totals	382,481	1,027,042	643,160	376,030	2,498,862	10,384,353	4,654,480	2,008,719	2,428,712	19,546,414	21,975,127
Total NCA	350	2,892	3,219	2,230	11,779	57,683	26,491	15,902	9,291	111,855	121,146
person-day/ha(NCA)	403	355	200	169	212	180	176	126	261	175	181

SW14	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	107,586	523,927	45,341	0	0	676,854	676,854
M Aus	7,111	49,194	0	0	0	0	0	0	56,305	0	56,305
B Aman	0	0	0	0	0	29,033	247,478	22,122	0	298,634	298,634
L T Aman	3,510	123,892	1,040	0	913,548	8,074,279	69,893	438	128,442	9,058,158	9,186,600
M Aman	13,875	113,008	0	0	389,131	1,420,862	0	234	132,883	1,810,028	1,942,911
Jute	0	0	0	0	58,798	596,833	20,377	0	0	676,007	676,007
Sugarcane	1,001	276	0	0	45,170	9,196	0	0	1,278	54,366	55,643
Rabi											
L Boro	0	0	1,576	12,240	0	0	52,451	10,444	13,817	62,894	76,711
M Boro	18,982	263,632	12,509	3,565	0	0	0	0	298,688	0	298,688
M Wheat	5,253	29,001	655	0	0	6,162	0	0	34,909	6,162	41,071
Potato	118	4,074	192	0	5,357	138,457	10,683	0	4,384	154,497	158,881
Pulses	0	0	0	0	61,563	446,912	23,348	3,297	0	535,120	535,120
Oilseeds	395	818	444	0	132,396	1,045,246	48,181	5,885	1,657	1,231,708	1,233,365
Spices	287	244	0	0	29,447	154,819	0	0	532	184,267	184,798
Minor crops	520	3,051	218	0	25,232	383,380	1,780	0	3,789	410,392	414,181
Orchards	0	0	0	0	235,889	0	0	0	0	235,889	235,889
Totals	57,054	587,191	16,634	15,805	2,004,117	12,828,906	519,531	42,421	676,684	15,394,975	16,071,659
Total NCA	151	1,692	83	105	16,091	84,601	5,293	459	2,031	106,445	108,476
person-day/ha(NCA)	377	347	200	150	125	152	98	92	333	145	148

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Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

SWSCAR-3C.wk1

CROP LABOUR INPUT BY PLANNING UNIT (person day)

24-Sep-92

(Crop Areas File: SWSCAR-3.wk1)

SW Total	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	19,252,394	19,751,333	9,724,855	0	0	48,728,581	48,728,581
M Aus	4,969,807	10,115,574	0	0	309,251	546,568	0	0	15,109,481	855,819	15,965,300
B Aman	0	0	0	0	0	2,565,811	15,559,336	7,163,729	0	25,288,876	25,288,876
L T Aman	2,326,251	15,325,568	666,897	0	7,494,128	33,783,944	925,006	7,384	18,318,716	42,210,463	60,529,179
M Aman	1,475,860	11,428,229	0	0	7,602,647	8,257,775	0	3,946	28,904,099	15,864,368	44,768,467
Jute	0	0	0	0	6,391,165	8,641,369	1,978,032	0	0	17,010,566	17,010,566
Sugarcane	3,965,132	808,266	0	0	3,776,337	1,700,821	0	0	4,663,399	5,477,158	10,140,556
Rabi											
L Boro	0	153	58,381	941,533	0	0	168,142	1,411,607	1,000,068	1,579,749	2,579,817
M Boro	14,921,323	23,017,669	8,785,186	1,984,743	253,838	0	0	0	48,710,921	253,838	48,964,758
M Wheat	4,132,490	5,245,281	991,897	0	454,264	2,351,808	987,288	748,583	10,373,668	4,541,942	14,915,610
Potato	172,470	611,348	68,309	0	501,875	825,728	639,976	8,952	852,127	1,976,530	2,828,657
Pulses	373,831	1,055,935	198,577	279	3,395,837	5,538,432	2,688,120	711,084	1,628,622	12,333,473	13,962,095
Oilseeds	715,136	1,797,332	183,212	1,956	2,344,231	5,995,269	2,551,295	745,515	2,690,637	11,636,310	14,326,947
Spices	753,728	863,818	0	0	822,587	1,608,443	231,744	0	1,417,547	2,662,774	4,080,321
Minor crops	2,011,617	3,750,518	97,298	0	676,110	3,766,176	276,468	0	5,869,433	4,718,753	10,588,186
Orchards	219,248	0	0	0	2,993,640	0	0	0	219,248	2,993,640	3,212,887
Totals	51,346,893	73,832,903	11,049,758	2,928,511	56,268,302	95,333,476	35,730,262	10,800,801	139,757,965	198,132,841	337,890,805
Total NCA	148,577	215,672	54,829	16,809	303,602	547,221	222,750	88,750	436,887	1,162,323	1,599,210
person-day/ha(NCA)	350	341	202	174	185	174	160	122	320	170	211

SW Avg	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	1,375,171	1,410,809	694,633	0	0	3,480,613	3,480,613
M Aus	356,415	722,834	0	0	22,089	39,041	0	0	1,079,249	61,130	1,140,379
B Aman	0	0	0	0	0	183,272	1,111,381	511,695	0	1,806,348	1,806,348
L T Aman	166,161	1,094,583	47,635	0	535,295	2,413,139	66,072	527	1,308,480	3,015,033	4,323,513
M Aman	1,248,276	815,303	0	0	543,046	589,841	0	282	2,064,579	1,133,169	3,197,748
Jute	0	0	0	0	456,512	617,241	141,288	0	0	1,215,040	1,215,040
Sugarcane	275,367	57,733	0	0	269,738	121,487	0	0	333,100	391,226	724,325
Rabi											
L Boro	0	11	4,170	67,252	0	0	12,010	100,829	71,433	112,839	184,273
M Boro	1,065,809	1,644,262	627,513	141,767	18,131	0	0	0	3,479,351	18,131	3,497,483
M Wheat	295,178	374,949	70,850	0	32,447	167,986	70,521	53,470	740,976	324,424	1,065,401
Potato	12,319	43,668	4,879	0	35,848	58,981	45,713	639	60,866	141,181	202,047
Pulses	26,702	75,424	14,184	20	242,560	395,602	192,009	50,792	116,330	880,962	997,293
Oilseeds	51,081	127,881	13,087	140	167,445	428,233	182,235	53,251	192,188	831,165	1,023,353
Spices	53,838	47,416	0	0	58,756	114,889	16,553	0	101,253	190,198	291,451
Minor crops	143,687	268,608	6,950	0	48,294	269,013	19,748	0	419,245	337,054	756,299
Orchards	15,661	0	0	0	213,831	0	0	0	15,661	213,831	229,492
Totals	3,710,492	5,273,772	789,268	209,179	4,019,164	6,809,534	2,552,162	771,486	9,982,712	14,152,346	24,135,058
Total NCA											
person-day/ha(NCA)	373	348	197	161	186	188	147	108	313	172	207

Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

SWCAR-3C wk1

CROP LABOUR INPUT BY PLANNING UNIT (person day)

(Crop Areas Frs : SWSCAR-3.wk1)

24-Sep-92

SC1	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
E Aus	0	0	0	0	911,720	2,533,100	1,806,402	0	0	5,251,222	5,251,222
M Aus	64,283	431,268	0	0	51,888	65,207	0	0	495,551	117,095	612,647
E Aman	0	0	0	0	0	240,404	2,294,190	343,249	0	2,877,843	2,877,843
L T Aman	98	427,584	107,206	0	31,470	4,332	0	0	534,889	35,802	570,691
M Aman	131,595	200,030	0	0	218,349	112,318	0	0	331,625	330,668	662,292
Jute	0	0	0	0	194,664	852,080	330,898	0	0	1,377,643	1,377,643
Sugarcane	23,937	0	0	0	688,684	409,672	0	0	23,937	1,098,357	1,122,294
Rabi											
L Boro	0	0	0	65,033	0	0	0	396,775	65,033	396,775	461,808
M Boro	125,076	308,731	1,920,394	124,296	0	0	0	0	2,978,497	0	2,978,497
M Wheat	0	0	0	0	29,387	361,358	324,284	4,515	0	719,544	719,544
Potato	13,909	0	0	0	549	52,488	47,747	0	13,909	100,784	114,693
Pulses	5,329	73,432	29,029	0	119,124	826,766	558,410	55,856	107,790	1,560,157	1,667,947
Oilseeds	13,639	34,056	46,999	3,084	124,056	582,312	437,563	25,396	147,777	1,169,327	1,317,104
Spices	32,987	215,327	0	0	184,240	198,295	118,924	0	248,315	501,459	749,773
Minor crops	0	0	0	0	62,998	366,498	47,747	0	0	477,243	477,243
Orchards	0	0	0	0	147,483	0	0	0	0	147,483	147,483
Totals	410,852	2,240,429	2,103,628	192,413	2,764,612	6,604,833	5,966,166	825,791	4,947,322	16,161,402	21,108,724
Total NCA	945	6,196	9,322	1,065	13,513	33,742	30,597	5,614	17,529	83,466	100,994
person-day/ha(NCA)	435	362	226	181	205	196	195	147	282	194	209

SC2	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	403,827	1,608,147	227,080	0	0	2,239,053	2,239,053
M Aus	8,545	57,327	0	0	65,014	178,916	0	0	65,872	243,930	309,802
B Aman	0	0	0	0	0	574,788	1,332,047	220,307	0	2,127,142	2,127,142
L T Aman	11,599	428,850	22,523	0	137,836	979,354	36,300	0	462,971	1,153,491	1,616,462
M Aman	108,834	371,679	0	0	78,559	89,407	0	0	480,512	167,966	648,478
Jute	0	0	0	0	100,920	547,714	136,178	0	0	784,812	784,812
Sugarcane	3,182	0	0	0	234,492	214,781	0	0	3,182	449,273	452,455
Rabi											
L Boro	0	0	0	11,373	0	0	0	150,262	11,373	150,262	161,635
M Boro	154,981	1,218,179	403,454	48,660	0	0	0	0	1,825,274	0	1,825,274
M Wheat	0	0	0	0	17,671	186,761	118,463	4,797	0	327,693	327,693
Potato	1,849	0	0	0	9,747	41,145	6,058	0	1,849	56,949	58,798
Pulses	9,901	8,367	3,307	0	107,909	268,718	235,810	18,045	21,575	630,482	652,058
Oilseeds	15,821	230,083	7,674	330	47,202	58,947	337,387	9,557	253,907	453,093	707,000
Spices	4,048	26,421	0	0	76,241	184,752	33,009	0	30,468	294,002	324,471
Minor crops	0	0	0	0	36,202	218,425	22,367	0	0	276,993	276,993
Orchards	0	0	0	0	113,824	0	0	0	0	113,824	113,824
Totals	318,758	2,340,905	436,959	60,363	1,429,443	5,151,854	2,484,700	402,968	3,156,984	9,468,965	12,625,949
Total NCA	797	6,215	1,959	341	7,785	26,545	14,430	3,007	9,312	51,768	61,079
person-day/ha(NCA)	400	377	223	177	184	194	172	134	339	183	207

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Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

SWCAR-3C.wk1

CROP LABOUR INPUT BY PLANNING UNIT (person day)

(Crop Areas File : SWSCAR-3.wk1)

24-Sep-92

SC3	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	231,712	1,132,817	442,152	0	0	1,806,681	1,806,681
M Aus	6,493	43,563	0	0	44,566	104,457	0	0	50,057	149,023	199,079
B Aman	0	0	0	0	0	136,788	844,899	487,872	0	1,469,560	1,469,560
L T Aman	10,186	431,914	64,084	0	57,428	412,949	1,407	0	506,183	471,784	977,968
M Aman	93,521	380,786	0	0	147,138	199,332	0	0	474,307	346,469	820,776
Jute	0	0	0	0	42,798	265,304	75,616	0	0	383,718	383,718
Sugarcane	2,418	0	0	0	160,965	151,730	0	0	2,418	312,694	315,112
Rabi											
L Boro	0	0	0	158,880	0	0	0	65,422	158,880	65,422	224,301
M Boro	134,157	1,242,249	1,147,933	13,476	0	0	0	0	2,537,815	0	2,537,815
M Wheat	0	0	0	0	43,640	48,947	23,191	186	0	115,964	115,964
Potato	1,580	0	0	0	12,345	19,889	14,030	0	1,580	46,264	47,844
Pulses	1,056	6,711	2,653	0	26,698	160,727	99,614	18,641	10,420	305,680	316,101
Oilseeds	16,395	237,843	3,970	250	15,956	93,894	85,886	4,991	258,459	200,727	459,186
Spices	3,076	20,078	0	0	45,088	124,254	33,319	0	23,153	202,661	225,815
Minor crops	0	0	0	0	16,952	105,896	14,662	0	0	137,510	137,510
Orchards	0	0	0	0	80,584	0	0	0	0	80,584	80,584
Totals	268,883	2,363,144	1,218,640	172,606	925,869	2,956,984	1,634,775	577,112	4,023,272	6,094,740	10,118,013
Total NCA	685	6,260	5,572	1,162	3,646	12,832	9,459	4,851	13,679	30,787	44,467
person-day/ha(NCA)	392	378	219	149	254	230	173	119	294	198	228

SC4	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	296,823	1,458,686	959,120	0	0	2,714,629	2,714,629
M Aus	12	193	0	0	56,039	123,628	0	0	205	179,667	179,872
B Aman	0	0	0	0	0	130,715	1,302,880	1,230,612	0	2,664,207	2,664,207
L T Aman	6,562	262,211	48,744	0	70,909	537,687	218	33	317,517	608,846	926,363
M Aman	47,610	219,527	0	0	213,570	312,170	0	17	267,137	525,756	792,893
Jute	0	0	0	0	57,117	373,778	133,492	0	0	564,388	564,388
Sugarcane	11	23	0	0	190,838	180,714	0	0	34	371,552	371,587
Rabi											
L Boro	0	0	362	88,480	0	0	0	108,617	88,842	108,617	197,459
M Boro	65,793	653,420	732,697	153,657	0	0	0	0	1,605,567	0	1,605,567
M Wheat	2	90	0	0	56,694	86,042	0	102,035	91	244,771	244,862
Potato	2	46	5	0	29,911	35,080	34,671	0	53	99,662	99,715
Pulses	0	0	0	0	29,227	176,486	153,126	75,211	0	434,050	434,050
Oilseeds	9,589	136,895	5	0	22,711	92,317	141,064	76,840	146,488	332,932	479,420
Spices	5	30	0	0	52,314	156,619	41,427	0	34	250,360	250,394
Minor crops	5	259	5	0	29,718	174,867	34,671	0	269	239,255	239,524
Orchards	0	0	0	0	132,951	0	0	0	0	132,951	132,951
Totals	129,590	1,272,693	781,818	242,137	1,238,821	3,838,787	2,800,669	1,593,365	2,426,238	9,471,642	11,897,880
Total NCA	350	3,478	3,900	1,443	4,516	15,593	13,868	13,009	9,171	46,986	56,157
person-day/ha(NCA)	370	366	200	168	274	246	202	122	265	202	212

Irrigated Jute and B Aman changed to rainfed and total Irrigated and rainfed areas adjusted to 1991 estimates

SWCAR-3C wk1

CROP LABOUR INPUT BY PLANNING UNIT (person day)

(Crop Areas File : SWSCAR-3.wk1)

24-Sep-92

SC5	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	239,194	655,633	86,819	0	0	981,647	981,647
M Aus	436,379	187,877	0	0	27,291	49,234	0	0	524,256	76,525	700,782
B Aman	0	0	0	0	0	31,813	168,439	116,471	0	316,724	316,724
L T Aman	217,401	1,019,471	105,003	0	168,894	727,251	80	5	1,341,875	896,230	2,238,105
M Aman	2,181,387	989,401	0	0	154,491	297,310	0	3	3,070,788	451,804	3,522,593
Jute	0	0	0	0	13,247	61,593	13,095	0	0	87,935	87,935
Sugarcane	741	61	0	0	68,159	46,380	0	0	803	114,539	115,342
Rabi											
L Boro	0	431,288	1,106	278,445	0	0	0	9,438	710,839	9,438	720,277
M Boro	2,431,476	1,938,100	1,578,153	415	0	0	0	0	5,948,144	0	5,948,144
M Wheat	97,068	5,160	0	0	10,420	13,029	88	5	102,228	23,542	125,770
Potato	367,127	181,853	17	0	3,460	6,766	2,796	0	548,997	13,022	562,019
Pulses	926	1,435	0	0	19,383	86,598	12,913	3,162	2,360	122,056	124,416
Oilseeds	220,588	403,304	44	0	10,125	97,471	13,705	925	623,937	122,227	746,164
Spices	285,173	1,909	0	0	21,541	68,676	6,516	0	287,082	96,733	383,816
Minor crops	11,643	17,302	17	0	10,154	62,738	2,814	0	28,963	75,706	104,669
Orchards	0	0	0	0	41,566	0	0	0	0	41,566	41,566
Totals	6,249,910	5,077,182	1,684,340	278,860	787,926	2,204,494	307,264	130,011	13,290,271	3,429,695	16,719,967
Total NCA	17,010	14,113	8,401	1,919	3,210	10,826	1,819	1,120	41,443	16,974	58,417
person-day/ha(NCA)	367	360	200	145	245	204	169	116	321	202	286

SC6	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	381,245	1,430,523	37,595	0	0	1,849,363	1,849,363
M Aus	19,318	6,047	0	0	59,969	159,311	0	0	25,365	219,280	244,645
B Aman	0	0	0	0	0	475,211	954,793	194,635	0	1,624,639	1,624,639
L T Aman	18,805	328,642	9,620	0	207,616	1,247,122	34,698	0	357,066	1,489,436	1,846,502
M Aman	164,576	281,445	0	0	120,164	193,472	0	0	448,021	313,636	759,657
Jute	0	0	0	0	70,621	402,204	86,263	0	0	559,088	559,088
Sugarcane	62	0	0	0	159,964	159,627	0	0	62	319,590	319,653
Rabi											
L Boro	0	19,505	223	9,616	0	0	0	90,113	29,343	90,113	119,456
M Boro	201,275	800,124	144,419	22,533	0	0	0	0	1,168,352	0	1,168,352
M Wheat	4,542	106	0	0	15,570	123,497	67,107	4,085	4,648	210,259	214,906
Potato	13,074	6,053	0	0	9,441	30,931	1,211	0	19,126	41,583	60,709
Pulses	5,976	34	4	0	80,667	172,847	136,098	10,336	6,014	399,948	405,962
Oilseeds	18,810	163,457	1,836	0	32,932	47,225	239,991	6,252	184,103	326,399	510,502
Spices	12,918	26	0	0	57,148	168,343	18,957	0	12,945	244,449	257,394
Minor crops	81	297	16	0	29,452	178,234	15,099	0	395	222,785	223,180
Orchards	0	0	0	0	98,226	0	0	0	0	98,226	98,226
Totals	459,438	1,605,735	156,119	32,149	1,323,014	4,788,547	1,591,812	305,422	2,253,440	8,008,795	10,262,235
Total NCA	1,252	4,407	770	204	6,815	23,895	9,750	2,393	6,632	42,853	49,485
person-day/ha(NCA)	367	364	203	158	194	200	163	128	340	187	207

Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates



SWCAR-3C, wk1

CROP LABOUR INPUT BY PLANNING UNIT (person day) (Crop Areas File - SWSCAR-3.wk1)

SC7	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
E Aus	0	0	0	0	259,004	636,281	0	0	0	895,285	895,285
M Aus	766,827	438,430	0	0	23,422	37,767	0	0	1,206,257	61,189	1,267,446
E Aman	0	0	0	0	0	10,011	2,701	354	0	13,066	13,066
L T Aman	346,458	731,795	2,483	0	245,070	1,042,341	5,045	0	1,079,735	1,292,456	2,372,191
M Aman	3,596,328	638,492	0	0	153,541	361,980	0	0	4,332,820	515,521	4,848,341
Jute	0	0	0	0	10,765	16,738	198	0	0	27,701	27,701
Sugarcane	7,654	0	0	0	47,895	18,713	0	0	7,654	66,608	74,262
Rabi											
L Boro	0	757,711	18,662	0	0	0	0	211	756,373	211	756,585
M Boro	4,036,198	588,954	15,970	992	0	0	0	0	4,622,114	0	4,622,114
M Wheat	186,501	28,583	0	0	27	19,323	165	10	213,084	19,525	232,608
Potato	494,057	268,483	0	0	1,598	6,962	0	0	760,541	8,560	769,101
Pulses	4,480	8,705	362	0	22,942	115,385	580	24	13,547	138,930	152,477
Oilseeds	309,262	25,025	82	0	10,490	101,231	648	15	329,368	112,384	441,752
Spices	493,451	8,823	0	0	17,458	61,589	114	0	502,274	79,161	581,435
Minor crops	40,647	72,218	1,314	0	8,834	57,937	34	0	114,179	66,806	180,985
Orchards	0	0	0	0	40,468	0	0	0	0	40,468	40,468
Totals	12,381,862	3,514,218	38,873	992	841,514	2,486,258	9,484	614	13,937,945	3,337,870	17,275,815
Total NCA	28,880	12,553	202	6	3,683	13,281	65	5	39,641	17,033	56,674
person-day/ha(NCA)	359	333	192	164	228	187	147	131	352	196	305

SC8	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
E Aus	0	0	0	0	1 617,201	4 778,021	0	0	0	6 395,222	6 395,222
M Aus	120,457	33,072	0	0	64,559	220,560	0	0	213,529	285,119	498,648
E Aman	0	0	0	0	0	23,096	87,188	7,210	0	117,494	117,494
L T Aman	89,101	593,769	15,038	0	3,032,574	14 373,591	511,053	0	697,908	17,917,217	18,615,125
M Aman	1 609,932	452,455	0	0	295,540	406,114	0	0	2 062,388	701,654	2 764,042
Jute	0	0	0	0	69,287	245,422	4,030	0	0	318,738	318,738
Sugarcane	33,421	0	0	0	95,420	6,878	0	0	33,421	102,298	135,719
Rabi											
L Boro	0	124,179	106,123	0	0	0	0	3,812	210,302	3,812	214,114
M Boro	1 544,562	1 069,482	73,475	1 130	0	0	0	0	2 688,648	0	2 688,648
M Wheat	142,895	56,782	0	0	553	6,057	3,354	204	199,677	10,168	209,845
Potato	0	14,469	0	0	57,261	1,462	0	0	14,469	58,723	73,192
Pulses	6,648	20,726	2,492	0	159,511	1 342,753	32,104	506	29,866	1 534,875	1 564,741
Oilseeds	14,927	59,986	164	0	176,768	749,505	28,220	454	75,078	954,948	1 030,025
Spices	106,285	14,078	0	0	68,356	460,275	8,447	0	120,364	537,078	657,442
Minor crops	43,695	159,162	8,699	0	58,062	397,810	694	0	211,556	456,566	668,122
Orchards	0	0	0	0	345,166	0	0	0	0	345,166	345,166
Totals	3 711,923	2 638,161	205,991	1 130	6 040,257	23 011 545	675,090	12 187	6 557,205	29 739 079	36 296 284
Total NCA	11 838	8 047	1 203	8	36 942	126 911	4 693	95	21 096	168 641	189 737
person-day/ha(NCA)	314	328	171	142	164	181	144	128	311	176	191

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Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

SWSCAR-3C.wk1

CROP LABOUR INPUT BY PLANNING UNIT (person day)

(Crop Areas File: SWSCAR-3.wk1)

24-Sep-92

SC9	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
E Aue	0	0	0	0	537,067	1,953,241	0	0	0	2,490,307	2,490,307
M Aue	17,074	27,415	0	0	28,408	84,440	0	0	44,489	112,847	157,337
E Aman	0	0	0	0	0	14,786	12,412	0	0	27,198	27,198
L T Aman	10,581	91,426	1,674	0	1,060,642	5,088,262	142,232	0	102,681	6,291,136	6,393,817
M Aman	191,772	59,285	0	0	144,030	530,055	0	0	261,057	674,085	935,142
Jute	0	0	0	0	35,358	63,313	0	0	0	98,671	98,671
Sugarcane	4,030	0	0	0	30,130	0	0	0	4,030	30,130	34,160
Rabi											
L Boro	0	12,338	12,131	0	0	0	0	0	24,469	0	24,469
M Boro	181,060	144,139	7,856	0	0	0	0	0	333,056	0	333,056
M Wheat	16,849	8,012	0	0	0	62,045	0	0	24,860	62,045	86,905
Potato	876	5,190	0	0	19,218	22,470	0	0	6,066	41,688	47,754
Pulses	1,082	3,284	305	0	55,311	549,716	7,432	0	4,471	612,458	616,929
Oilseeds	1,623	5,844	0	0	48,907	252,564	2,560	0	7,467	304,031	311,499
Spices	12,674	2,178	0	0	26,198	178,813	2,133	0	14,852	207,145	221,997
Minor crops	7,897	22,260	991	0	15,877	131,508	0	0	31,148	147,386	178,534
Orchards	0	0	0	0	148,724	0	0	0	0	148,724	148,724
Totals	445,518	390,171	22,957	0	2,149,870	8,931,212	166,770	0	858,646	11,247,852	12,106,498
Total NCA	1,424	1,210	134	0	12,399	49,670	1,189	0	2,768	63,259	66,027
person-day/ha(NCA)	313	322	171	ERR	173	180	140	ERR	310	178	183

SC10	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
E Aue	0	0	0	0	343,421	1,829,304	0	0	0	2,172,726	2,172,726
M Aue	33,842	98,413	0	0	33,514	75,457	0	0	132,256	108,971	241,226
E Aman	0	0	0	0	0	35,826	3,158	0	0	38,985	38,985
L T Aman	11,827	166,996	724	0	702,265	3,447,733	26,776	0	179,547	4,176,773	4,356,320
M Aman	176,000	131,242	0	0	193,389	1,058,826	0	0	307,242	1,252,215	1,559,457
Jute	0	0	0	0	44,419	15,227	0	0	0	59,646	59,646
Sugarcane	2,852	0	0	0	27,968	4,466	0	0	2,852	32,433	35,286
Rabi											
L Boro	0	16,969	5,460	0	0	0	0	0	22,429	0	22,429
M Boro	153,363	154,120	3,397	0	0	0	0	0	350,880	0	350,880
M Wheat	12,456	11,138	0	0	0	145,902	0	0	23,593	145,902	169,495
Potato	13,627	26,615	0	0	10,846	52,838	0	0	40,242	63,684	103,927
Pulses	1,676	3,335	109	0	28,169	364,458	1,154	0	5,120	393,781	398,901
Oilseeds	8,058	7,948	0	0	22,882	218,617	500	0	16,005	241,998	258,003
Spices	15,216	3,795	0	0	25,201	156,483	402	0	19,012	182,085	201,097
Minor crops	20,638	34,720	493	0	4,987	84,759	0	0	55,852	89,746	145,598
Orchards	0	0	0	0	148,645	0	0	0	0	148,645	148,645
Totals	449,555	595,291	10,183	0	1,585,706	7,489,896	31,989	0	1,155,030	9,107,591	10,262,621
Total NCA	1,392	2,189	59	0	7,642	42,549	232	0	3,640	50,423	54,064
person-day/ha(NCA)	323	318	171	ERR	207	176	138	ERR	317	181	190

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Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

SWCAR-3C wk1

CROP LABOUR INPUT BY PLANNING UNIT (person day)

(Crop Areas File SWCAR-3.wk1)

24-Sep-92

SC11	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
<i>Kharif</i>											
B Aus	0	0	0	0	440,206	1,872,425	0	0	0	2,312,631	2,312,631
M Aus	512,821	82,538	0	0	46,509	87,364	0	0	1,334,359	133,872	1,468,232
B Aman	0	0	0	0	0	37,055	931	0	0	37,987	37,987
L T Aman	132,278	1,171,237	257	0	641,478	3,030,090	1,203	0	1,362,772	3,672,771	5,035,544
M Aman	2,314,428	95,574	0	0	280,463	1,164,773	0	0	3,083,003	1,445,237	4,528,239
Jute	0	0	0	0	42,343	15,454	0	0	0	57,797	57,797
Sugarcane	9,445	0	0	0	61,094	20,139	0	0	9,445	81,234	90,678
<i>Rabi</i>											
L Boro	0	396,873	4,031	0	0	0	0	0	400,904	0	400,904
M Boro	2,220,745	1,234,387	1,392	0	0	0	0	0	3,456,443	0	3,456,443
M Wheat	108,071	62,249	0	0	0	135,514	0	0	170,320	135,514	305,834
Potato	298,070	257,494	0	0	7,432	49,076	0	0	545,563	56,509	602,072
Pulses	10,397	18,147	39	0	34,942	332,983	52	0	28,602	367,977	396,579
Oilseeds	173,727	3,496	0	0	17,540	200,216	16	0	205,422	217,772	423,194
Spices	270,873	23,127	0	0	32,802	159,809	18	0	293,900	192,629	486,529
Minor crops	116,600	166,581	152	0	9,145	101,383	0	0	283,434	110,528	393,962
Orchards	0	0	0	0	140,098	0	0	0	0	140,098	140,098
Totals	6,234,454	5,133,843	5,871	0	1,754,053	7,206,282	2,221	0	11,174,168	8,962,556	20,136,724
Total NCA	17,030	15,962	32	0	7,702	40,248	19	0	32,724	47,968	80,692
person-day/ha(NCA)	354	328	183	ERR	228	179	119	ERR	341	187	250

SC12	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
<i>Kharif</i>											
B Aus	0	0	0	0	317,750	1,215,604	418	0	0	1,533,773	1,533,773
M Aus	31,648	53,483	0	0	19,887	52,584	0	0	85,131	72,471	157,603
B Aman	0	0	0	0	0	15,367	7,596	149	0	23,112	23,112
L T Aman	17,356	144,512	2,259	0	606,016	2,922,544	68,777	48	164,227	3,597,384	3,761,611
M Aman	289,258	112,237	0	0	109,750	435,050	0	25	401,495	544,825	946,320
Jute	0	0	0	0	23,474	32,905	6	0	0	56,385	56,385
Sugarcane	5,458	56	0	0	22,776	3,265	0	0	5,513	26,041	31,554
<i>Rabi</i>											
L Boro	0	22,488	16,530	698	0	0	0	4	39,716	4	39,720
M Boro	271,032	213,518	10,484	36	0	0	0	0	495,170	0	495,170
M Wheat	23,892	12,328	0	0	5	51,836	0	0	35,920	51,841	87,761
Potato	6,583	12,246	12	0	10,691	19,996	1	0	18,841	30,689	49,530
Pulses	1,396	3,713	326	0	26,851	270,771	3,163	12	5,436	300,797	306,233
Oilseeds	4,798	6,499	11	0	20,448	124,236	1,512	13	11,308	146,209	157,517
Spices	21,475	3,425	0	0	17,280	110,075	1,030	0	24,900	128,385	153,285
Minor crops	12,950	33,297	1,297	0	8,813	77,842	1	0	47,543	86,656	134,199
Orchards	0	0	0	0	94,413	0	0	0	0	94,413	94,413
Totals	685,845	617,702	30,919	735	1,278,154	5,332,075	82,505	252	1,335,201	6,692,986	8,028,188
Total NCA	2,173	1,306	181	6	7,104	30,221	598	2	4,296	37,925	42,221
person-day/ha(NCA)	316	319	170	129	180	176	138	120	311	176	190

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Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

SWCAR-3C.wk1

CROP LABOUR INPUT BY PLANNING UNIT (person day)

(Crop Areas File - SWSCAR-3.wk1)

24-Sep-92

SC13	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	458,902	1,350,683	0	0	0	1,809,586	1,809,586
M Aus	11,901	5,196	0	0	17,832	61,231	0	0	21,097	79,063	100,160
B Aman	0	0	0	0	0	0	12,321	0	0	12,321	12,321
L T Aman	8,751	56,991	1,452	0	865,359	4,097,072	145,647	0	67,194	5,108,078	5,175,271
M Aman	158,686	43,274	0	0	83,914	115,258	0	0	201,960	199,172	401,132
Jute	0	0	0	0	18,881	64,833	0	0	0	83,713	83,713
Sugarcane	3,302	0	0	0	25,489	0	0	0	3,302	25,489	28,791
Rabi											
L Boro	0	10,293	10,485	0	0	0	0	0	20,778	0	20,778
M Boro	152,152	102,227	6,815	0	0	0	0	0	260,994	0	260,994
M Wheat	14,118	5,610	0	0	0	0	0	0	19,729	0	19,729
Potato	0	1,785	0	0	16,258	0	0	0	1,785	16,258	18,043
Pulses	630	2,586	251	0	45,313	388,997	7,210	0	2,967	441,520	444,487
Oilseeds	1,389	4,598	0	0	49,929	214,308	2,889	0	5,986	267,126	273,112
Spices	10,501	1,391	0	0	18,881	129,666	2,185	0	11,892	150,731	162,623
Minor crops	5,391	15,636	1,073	0	16,258	111,656	0	0	26,100	127,915	154,014
Orchards	0	0	0	0	97,550	0	0	0	0	97,550	97,550
Totals	366,821	256,987	20,076	0	1,714,565	6,533,704	170,251	0	643,784	8,418,520	9,062,304
Total NCA	1,167	773	116	0	10,489	36,018	1,214	0	2,056	47,721	49,777
person-day/ha(NCA)	314	332	173	ERR	163	181	140	ERR	313	176	182

SC Total	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	6,438,073	22,454,465	3,559,586	0	0	32,452,124	32,452,124
M Aus	2,029,602	2,268,823	0	0	538,897	1,300,156	0	0	4,298,425	1,839,053	6,137,478
B Aman	0	0	0	0	0	1,725,861	7,023,557	2,600,860	0	11,350,277	11,350,277
L T Aman	941,002	5,852,496	381,067	0	7,827,555	37,910,328	973,436	86	7,174,564	46,711,406	53,885,970
M Aman	10,980,927	4,739,429	0	0	2,192,897	5,276,066	0	44	15,720,355	7,469,008	23,189,363
Jute	0	0	0	0	723,894	2,956,565	779,776	0	0	4,460,235	4,460,235
Sugarcane	96,513	140	0	0	1,813,873	1,216,365	0	0	96,653	3,030,238	3,126,890
Rabi											
L Boro	0	1,751,643	175,113	612,524	0	0	0	824,656	2,539,280	824,656	3,363,936
M Boro	11,671,868	10,187,450	6,046,440	365,196	0	0	0	0	28,270,954	0	28,270,954
M Wheat	606,393	187,757	0	0	173,967	1,240,311	536,651	115,838	794,150	2,066,767	2,860,917
Potato	1,200,754	772,233	35	0	188,757	339,103	106,515	0	1,973,021	634,375	2,607,396
Pulses	49,496	149,796	38,878	0	756,049	5,057,205	1,247,664	181,794	238,170	7,242,711	7,480,880
Oilseeds	808,625	1,392,232	60,786	3,664	599,945	2,832,843	1,291,941	124,444	2,265,306	4,849,172	7,114,478
Spices	1,268,682	320,509	0	0	642,748	2,157,650	266,481	0	1,589,191	3,066,880	4,656,070
Minor crops	259,547	525,833	14,058	0	307,451	2,069,554	138,089	0	799,438	2,515,095	3,314,532
Orchards	0	0	0	0	1,629,697	0	0	0	0	1,629,697	1,629,697
Totals	29,913,408	28,148,341	6,716,375	981,384	23,833,804	86,536,471	15,923,696	3,847,722	65,759,508	130,141,693	195,901,201
Total NCA	84,943	81,038	31,852	6,153	125,446	462,329	87,932	30,096	203,987	705,803	909,790
person-day/ha(NCA)	352	347	211	159	190	187	181	128	322	184	215

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Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

SWCAR-3C.wk1

CROP LABOUR INPUT BY PLANNING UNIT (person day)

(Crco Areas File: SWSCAR-3.wk1)

24-Sep-92

TOTAL	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aue	0	0	0	0	25,690,467	42,205,797	13,284,441	0	0	81,180,705	81,180,705
M Aue	119,409	12,388,497	0	0	848,148	1,846,724	0	0	19,407,906	2,694,872	22,102,778
B Aman	0	0	0	0	0	4,291,672	22,582,893	9,764,588	0	36,639,154	36,639,154
L T Aman	3,267,253	21,178,364	1,047,963	0	15,321,684	71,694,272	1,898,441	7,471	25,493,280	88,921,868	114,415,148
M Aman	28,456,786	16,167,568	0	0	9,795,544	13,533,842	0	3,990	44,624,455	23,333,376	67,957,831
Jute	0	0	0	0	7,115,059	11,597,934	2,757,808	0	0	21,470,801	21,470,801
Sugarcane	3,351,645	806,427	0	0	5,590,210	2,917,186	0	0	4,760,052	8,507,395	13,267,447
Rabi											
L Boro	0	1,751,757	233,494	1,554,057	0	0	168,142	2,236,263	3,539,348	2,404,405	5,943,753
M Boro	26,593,191	33,207,113	14,831,626	2,349,939	253,838	0	0	0	76,981,875	253,838	77,235,713
M Wheat	4,738,883	5,437,338	991,897	0	628,230	3,592,118	1,523,939	864,421	11,167,819	6,608,709	17,776,527
Potato	373,224	1,383,581	68,343	0	590,632	1,164,831	746,491	8,952	2,825,148	2,610,905	5,436,053
Pulses	423,327	1,205,730	237,455	279	4,151,886	10,595,637	3,935,784	892,878	1,866,791	19,576,184	21,442,975
Oilseeds	1,523,761	3,182,565	243,998	5,620	2,944,176	8,828,112	3,843,236	869,959	4,955,943	16,485,483	21,441,426
Spices	2,322,411	964,327	0	0	1,465,335	3,766,093	498,226	0	3,006,738	5,729,854	8,736,391
Minor crops	2,271,164	4,286,351	111,356	0	983,561	5,835,730	414,557	0	6,668,871	7,233,848	13,902,719
Orchards	219,248	0	0	0	4,623,337	0	0	0	219,248	4,623,337	4,842,585
Totals	81,960,302	101,981,143	17,766,133	3,909,895	80,102,106	181,869,948	51,653,957	14,648,522	205,517,472	328,274,533	533,792,006
Total NCA	233,521	297,710	86,681	22,962	429,048	1,009,550	310,682	118,845	640,874	1,868,126	2,509,000
person-day/ha(NCA)	351	343	205	170	187	180	166	123	321	176	213

SC Avg	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aue	0	0	0	0	495,236	1,727,267	273,814	0	0	2,496,317	2,496,317
M Aue	156,123	174,525	0	0	41,454	100,012	0	0	330,648	141,466	472,114
B Aman	0	0	0	0	0	132,759	540,274	200,066	0	873,098	873,098
L T Aman	72,385	450,192	29,313	0	602,120	2,916,179	74,880	7	551,890	3,593,185	4,145,075
M Aman	844,687	364,571	0	0	168,684	405,851	0	3	1,209,258	574,539	1,783,797
Jute	0	0	0	0	55,684	227,428	59,983	0	0	343,095	343,095
Sugarcane	7,424	11	0	0	139,529	93,567	0	0	7,435	233,095	240,530
Rabi											
L Boro	0	134,742	13,470	47,117	0	0	0	63,435	195,329	63,435	258,764
M Boro	897,836	783,650	465,111	28,092	0	0	0	0	2,174,689	0	2,174,689
M Wheat	46,646	14,443	0	0	13,382	95,409	41,281	8,911	61,088	158,982	220,071
Potato	92,366	59,403	3	0	14,520	26,085	8,193	0	151,771	48,798	200,569
Pulses	3,807	11,523	2,991	0	58,158	389,016	95,974	13,984	18,321	557,132	575,452
Oilseeds	62,202	107,095	4,676	282	46,150	217,911	99,380	9,573	174,254	373,013	547,268
Spices	97,591	24,855	0	0	49,442	165,973	20,499	0	122,245	235,914	358,159
Minor crops	19,965	40,449	1,081	0	23,650	159,196	10,622	0	61,495	193,469	254,964
Orchards	0	0	0	0	125,361	0	0	0	0	125,361	125,361
Totals	2,301,031	2,165,257	516,644	75,491	1,833,370	6,656,652	1,224,900	295,979	5,058,424	10,010,899	15,069,323
person-day/ha(NCA)	356	345	193	ERR	208	195	157	ERR	315	187	218

APPENDIX E

Composition of Crop Categories Adopted for the Study Analyses

1. Introduction

The table that follows sets out the type and proportion of crops that make up the composite "crop" used in the crop budgets, production and nutrient output estimates in the SWA study analyses.

The crop mixtures are based on data from DAE at the Thana level collected as part of the study from all areas of SWA. Orchards are widely reported but few details were available on their species composition and yields. Consequently the orchard areas have not been included. Estimates for orchards, however are covered under the heading social forestry in Chapter 3 (Section 3.4.1).

TABLE E.1

Southwest Region Crops Representing the Major Crop Categories

PU	Pulses %	Oilseeds %	Spices %	Other Rainfed %	Other Irrig %
SW1	Lentil 100	Mustard 100	Onion 65 Garlic 35	Potato 35 Tomato 65	Potato (100)
SW2	Lentil 55 Khesari 45	Mustard 100	Onion 100	S-Potato 75 Potato 25 Tomato 50	Potato (45)
SW3	Lentil 67 Chickpea 33	Mustard 100	Onion 70 Garlic 15 Chilli 15	S-Potato 50 Tomato 50	Cabbage (100)
SW4	Lentil 75 Chickpea 25	Mustard 100	Onion 60 Chilli 40	Potato 33 Tomato 67	Potato (100)
SW5	Lentil 60 Keshari 40	Mustard 100	Onion 60 Chilli 40	S-potato 70 Tomato 30	Potato (40) Cabbage (60)
SW6	Lentil 40 Keshari 60	Mustard 100	Onion 60 Chilli 40	S-potato 100	Potato (100)
SW7	Lentil 50 Keshari 50	Mustard 100	Onion 100	S-potato 100	Potato (100)
SW8	Lentil 85 Chickpea 15	Mustard 100	Onion 55 Chilli 45	S-potato 25 Tomato 75	Potato (100)
SW9	Lentil 100	Mustard 100	Onion 60 Chilli 40	Tomato 100	Potato (100)
SW10	Lentil 40 Keshari 60	Mustard 60 G.Nuts 40	Onion 55 Chilli 45	S-potato 30 Tomato 70	Potato (50) Cabbage (50)
SW11	Lentil 50 Keshari 50	Mustard 100	Onion 70 Garlic 30	Potato 60 Tomato 40	Potato (100)
SW12	Lentil 70 Keshari 30	Mustard 33 G. Nut 67	Onion 33 Chilli 67	Tomato 100	Potato (60) Cauliflo.(40)
SW13	Lentil 20 Keshari 80	Mustard 40 G.Nuts 40	Chilli 100	S-potato 50 Potato 50	Potato (40) Cabbage (60)
SW14	Keshari 100	Mustard 75 Sesame 25	Onion 20 Chilli 80	S-potato 70 Tomato 30	Potato 100

TABLE E.1 (cont)

Southwest Region Crops Representing the Major Crop Categories

PU	Pulses %	Oilseeds %	Spices %	Other Rainfed %	Other Irrig %
SC1	Lentil 70 Keshari 30	Mustard 70 G. Nuts 30	Onion 67 Garlic 33	S-potato 100	Cabbage 45 Caulifl. 55
SC2	Lentil 30 Keshari 70	Mustard 100	Chillie 100	S-Potato 100	Cabbage 100
SC3	Lentil 45 Keshari 55	Mustard 100	Chillie 100	S-Potato 100	Potato 50 Cabbage 50
SC4	Lentil 33 Keshari 67	Mustard 100	Chillie 100	S-Potato 100	Cabbage 100
SC5	Keshari 100	Mustard 100	Chillie 100	S-Potato 100	Potato 100
SC6	Keshari 100	Mustard 67 Sesame 33	Chillie 100	S-Potato 100	Cabbage 50 Caulifl. 50
SC7	Mung 30 Keshari 70	Mustard 75 Sesame 25	Chillie 100	S-Potato 100	Cabbage 50 Caulifl. 50
SC8	Mung 40 Keshari 60	Mustard 45 G. Nut 56	Chillie 100	S-Potato 100	Cabbage 100
SC9	Mung 70 Keshari 30	G. Nut 50 Sesame 50	Chillie 100	S-Potato 100	Cabbage 100
SC10	Keshari 100	Mustard 55 G. nut 45	Chillie 100	S-Potato 100	Potato 60 Cabbage 40
SC11	Keshari 100	Mustard 100	Chillie 100	S-Potato 100	Cabbage 100
SC12	Keshari 100	Mustard 100	Chillie 100	S-Potato 100	Cabbage 100
SC13	Mung 50 Keshari 50	Mustard 45 G. nut 55	Chillie 100	S-Potato 100	Potato 100

APPENDIX F

Southwest Area Crop Budgets at 1991 Economic Values

The tables in this appendix give the crop budgets 1991 economic values for each of the study areas 27 Planning Units, excluding SW15, the Sundarbans. These form the basis for the calculation of the major benefits from flood control, drainage and irrigation developments proposed by the study and for the prior ranking and selection of areas most suitable for water resource management projects by the Resource Allocation and Optimisation Model.

Crop Budgets at 1991 Financial Values by Planning Unit : SW1

Sl. No.	Name of Crop	Gross Income			Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power 0.87			Total	Excl. By product
1	B. Aus (L) (R)	6600	2169	8769	600	988	0.87	4507	1569	383	8047	723	-1447
2	Aus (M) (IR) (R)	16972	2076	19048	330	1649	255	6240	1883	518	10875	8173	6097
3	B. Aman (L) (R)	6818	2264	9082	300			3536	1569	270	5675	3407	1143
4	T. Aman (L) (R) (IR)	10795	3584	14380	300	242	255	4333	1569	335	7034	7345	3761
5	T. Aman (M) (R) (IR)	20080	2219	22299	270	836	510	5547	1569	437	9169	13130	10911
6	Boro (L) (R) (IR)	14489	4716	19205	300	148	128	6240	1883	435	9133	10071	5355
7	Boro (M) (IR) (R)	23489	2792	26281	330	1876	510	6517	1883	556	11672	14608	11816
8	Wheat (M) (R)	9884	343	10226	1560	2053	255	3709	1569	457	9604	623	280
9	Wheat (M) (IR)	13953	484	14437	1560	2966	255	4195	1569	527	11072	3365	2881
10	Jute (R)	12910	7121	20031	240	1642	255	6240	1883	513	10773	9258	2137
11	Sugarcane (R)	49132		49132	5000	3306	510	8424	1883	956	20079	29053	29053
12	Sugarcane (IR)	59195		59195	5000	3899	510	9811	1883	1055	22158	37037	37037
13	Potato (L) (R)	24828		24828	5600	1764	255	6760	2017	820	17216	7611	7611
14	Potato (M) (R) (IR)	37241		37241	5600	3619	510	8008	2017	988	20742	16499	16499
15	Sweet Potato (R)												
16	Khesari (R)												
17	Lentil (R)	9374	348	9722	602			2427	1121	207	4357	5365	5017
18	Chickpea (R)												
19	Mungbean (R)												
20	Mustard (R)	9466		9466	164	544	255	2843	1121	246	5173	4293	4293
21	Groundnut (R)												
22	Sesame (R)												
23	Onion (R)	49483		49483	3600	1018		6760	2017	670	14065	35418	35418
24	Garlic (R)	95080		95080	4010	1018		6760	2017	690	14496	80585	80585
25	Chilli (R)												
26	Tomato (R)	34828		34828	50	2102	255	5235	1883	476	10001	24827	24827
27	Cabbage (IR)												
28	Cauliflower (IR)												

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SW2

Sl. No.	Name of Crop	Gross Income		Variable Costs				Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power	Total	Excl. By product
1	B. Aus (L) (R)	6600	2169	8769	600	988		4507	1569	8047	-1447
2	Aus (M) (IR) (R)	16972	2076	19048	330	1649	255	6240	1883	10875	6097
3	B. Aman (L) (R)	7500	2264	9764	300			3536	1569	5675	1825
4	T. Aman (L) (R) (IR)	11875	3584	15459	300	242	255	4333	1569	7034	4841
5	T. Aman (M) (R) (IR)	20080	2219	22299	270	836	510	5547	1569	9169	10911
6	Boro (L) (R) (IR)	15057	4716	19773	300	148	128	6240	1883	9133	5924
7	Boro (M) (IR) (R)	25261	2792	28053	330	1876	510	6517	1883	11672	13589
8	Wheat (M) (R)	9291	343	9633	1560	2053	255	3709	1569	9604	-313
9	Wheat (M) (IR)	13116	709	13825	1560	2966	255	4195	1569	11072	2044
10	Jute (R)	12910	7121	20031	240	1642	255	6240	1883	10773	2137
11	Sugarcane (R)	49132		49132	5000	3306	510	8424	1883	20079	29053
12	Sugarcane (IR)	59195		59195	5000	3899	510	9811	1883	22158	37037
13	Potato (L) (R)	29885		29885	5600	1764	255	6760	2017	17216	12669
14	Potato (M) (R) (IR)	44828		44828	5600	3619	510	8008	2017	20742	24085
15	Sweet Potato (R)	19655		19655	3275			5373	1345	10493	9162
16	Khesari (R)	5592	354	5946	479			1629		2214	3378
17	Lentil (R)	9374	354	9728	602			2427	1121	4357	5017
18	Chickpea (R)										
19	Mungbean (R)										
20	Mustard (R)	8472		8472	164	544	255	2843	1121	5173	3299
21	Groundnut (R)										
22	Sesame (R)										
23	Onion (R)	48276		48276	3600	1018		6760	2017	14065	34211
24	Garlic (R)										
25	Chilli (R)										
26	Tomato (R)	34828		34828	50	2102	255	5235	1883	10001	24827
27	Cabbage (IR)	32184		32184	60	2332	255	6413	1883	11490	20693
28	Cauliflower (IR)										

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SW3

Sl. No.	Name of Crop	Gross Income		Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour			Total	Excl. By product
1	B. Aus (L) (R)	5739	1886	7625	600	988		5000	408	8565	-940	-2826
2	Aus (M) (IR) (R)	19898	2434	22332	330	1649	255	7600	586	12303	10029	7595
3	B. Aman (L) (R)	7500	2264	9764	300			4080	297	6246	3517	1254
4	T. Aman (L) (R) (IR)	9375	2830	12205	300	242	255	4600	348	7314	4890	2061
5	T. Aman (M) (R) (IR)	20080	2219	22299	270	836	510	6400	479	10065	12234	10015
6	Boro (L) (R) (IR)	11591	3773	15364	300	148	128	6680	457	9595	5768	1996
7	Boro (M) (IR) (R)	29511	3508	33019	330	1876	510	8240	642	13481	19538	16030
8	Wheat (M) (R)	9884	343	10226	1560	2053	255	4280	486	10203	23	-319
9	Wheat (M) (IR)	13953	484	14437	1560	2966	255	4840	560	11750	2688	2204
10	Jute (R)	12910	7121	20031	240	1642	255	7200	561	11781	8250	1129
11	Sugarcane (R)	49132		49132	5000	3306	510	9720	1021	21440	27692	27692
12	Sugarcane (IR)											
13	Potato (L) (R)											
14	Potato (M) (R) (IR)											
15	Sweet Potato (R)	19655		19655	3275			6200	541	11361	8294	8294
16	Khesari (R)											
17	Lentil (R)	9374	354	9728	602			2800	226	4749	4979	4625
18	Chickpea (R)	9931	405	10336	567			3280	248	5216	5120	4715
19	Mungbean (R)											
20	Mustard (R)	9466		9466	164	544	255	3280	268	5632	3834	3834
21	Groundnut (R)											
22	Sesame (R)											
23	Onion (R)	48276		48276	3600	1018		7800	722	15157	33119	33119
24	Garlic (R)	89138		89138	4010	1018		7800	743	15600	73538	73538
25	Chilli (R)	32000		32000	40	1048	255	7200	521	10947	21053	21053
26	Tomato (R)	34828		34828	50	2102	255	6040	516	10846	23981	23981
27	Cabbage (IR)	32184		32184	60	2332	255	7400	596	12526	19657	19657
28	Cauliflower (IR)											

Note : Excludes Irrigation Costs. (1) 5% all costs

Source : Consultants Estimates

(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SW4

Sl. No.	Name of Crop	Gross Income		Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power		Total	Excl. By product
1	B. Aus (L) (R)	6077	2169	8247	600	988		3900	1569	353	7410	-1333
2	Aus (M) (IR) (R)	16972	2076	19048	330	1649	255	5400	1883	476	9993	6979
3	B. Aman (L) (R)	7500	2264	9764	300			3060	1569	246	5175	2325
4	T. Aman (L) (R) (IR)	11875	3584	15459	300	242	255	3750	1569	306	6422	5453
5	T. Aman (M) (R) (IR)	20080	2219	22299	270	836	510	4800	1569	399	8385	11695
6	Boro (L) (R) (IR)	14489	4716	19205	300	148	128	5400	1883	393	8251	6237
7	Boro (M) (IR) (R)	21494	2792	24286	330	1876	510	5640	1883	512	10751	10743
8	Wheat (M) (R)	10345	343	10688	1560	2053	255	3210	1569	432	9079	1265
9	Wheat (M) (IR)	14605	484	15088	1560	2966	255	3630	1569	499	10479	4126
10	Jute (R)	12910	7121	20031	240	1642	255	5400	1883	471	9891	3019
11	Sugarcane (R)	49132		49132	5000	3306	510	7290	1883	899	18889	30244
12	Sugarcane (IR)	59195		59195	5000	3899	510	8490	1883	989	20771	38424
13	Potato (L) (R)	29885		29885	5600	1764	255	5850	2017	774	16261	13624
14	Potato (M) (R) (IR)	44828		44828	5600	3619	510	6930	2017	934	19610	25217
15	Sweet Potato (R)											
16	Khesari (R)											
17	Lentil (R)	9374	354	9728	602			2100	1121	191	4014	5360
18	Chickpea (R)	9931	405	10336	567			2460	1121	207	4355	5576
19	Mungbean (R)											
20	Mustard (R)	10420		10420	164	544	255	2460	1121	227	4771	5649
21	Groundnut (R)											
22	Sesame (R)											
23	Onion (R)	48276		48276	3600	1018		5850	2017	624	13110	35166
24	Garlic (R)											
25	Chilli (R)	32000		32000	40	1048	255	5400	1883	431	9057	22943
26	Tomato (R)	34828		34828	50	2102	255	4530	1883	441	9261	25567
27	Cabbage (IR)											
28	Cauliflower (IR)											

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SW5

Sl. No.	Name of Crop	Gross Income		Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power		Total	Excl. By product
1	B. Aus (L) (R)	6600	2169	8769	600	988		5200	1569	8775	-5	-2175
2	Aus (M) (IR) (R)	16972	2076	19048	330	1649	255	7200	1883	11883	7165	5089
3	B. Aman (L) (R)	7500	2264	9764	300			4080	1569	6246	3517	1254
4	T. Aman (L) (R) (IR)	11875	3588	15463	300	242	255	5000	1569	7734	7728	4141
5	T. Aman (M) (R) (IR)	20080	2219	22299	270	836	510	6400	1569	10065	12234	10015
6	Boro (L) (R) (IR)	14489	4716	19205	300	148	128	7200	1883	10141	9063	4347
7	Boro (M) (IR) (R)	23489	2792	26281	330	1876	510	7520	1883	12725	13556	10764
8	Wheat (M) (R)	9884	343	10226	1560	2053	255	4280	1569	10203	23	-319
9	Wheat (M) (IR)	13953	484	14437	1560	2966	255	4840	1569	11750	2688	2204
10	Jute (R)	12910	7121	20031	240	1642	255	7200	1883	11781	8250	1129
11	Sugarcane (R)	49132		49132	5000	3306	510	9693	1883	21412	27720	27720
12	Sugarcane (IR)	59195		59195	5000	3899	510	11320	1883	23743	35453	35453
13	Potato (L) (R)											
14	Potato (M) (R) (IR)	44828		44828	5600	3619	510	9240	2017	22036	22792	22792
15	Sweet Potato (R)	19655		19655	3275			6200	1345	11361	8294	8294
16	Keshari (R)	4989	354	5343	479			1880		2477	2866	2512
17	Lentil (R)	9374	354	9728	602			2800	1121	4749	4979	4625
18	Chickpea (R)											
19	Mungbean (R)											
20	Mustard (R)	9466		9466	164	544	255	3280	1121	5632	3834	3834
21	Groundnut (R)											
22	Sesame (R)											
23	Onion (R)	48276		48276	3500	1018		7800	2017	15157	33119	33119
24	Garlic (R)											
25	Chilli (R)	32000		32000	40	1048	255	7200	1883	10947	21053	21053
26	Tomato (R)	34828		34828	50	2102	255	6040	1883	10846	23981	23981
27	Cabbage (IR)	31218		31218	60	2332	255	7400	1883	12526	18692	18692
28	Cauliflower (IR)											

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SW6

Sl. No.	Name of Crop	Gross Income		Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power		Total	Excl. By product
1	B. Aus (L) (R)	5739	1886	7625	600	988		5000	1569	408	8565	-940
2	Aus (M) (IR) (R)	19898	2434	22332	330	1649	255	7600	1883	586	12303	10029
3	B. Aman (L) (R)	7500	2264	9764	300			4080	1569	297	6246	3517
4	T. Aman (L) (R) (IR)	9375	2830	12205	300	242	255	4600	1569	348	7314	4890
5	T. Aman (M) (R) (IR)	20080	2219	22299	270	836	510	6400	1569	479	10065	12234
6	Boro (L) (R) (IR)	11591	3773	15364	300	148	128	6680	1883	457	9595	5768
7	Boro (M) (IR) (R)	29511	3508	33019	330	1876	510	8240	1883	642	13481	19538
8	Wheat (M) (R)	9884	343	10226	1560	2053	255	4280	1569	486	10203	23
9	Wheat (M) (IR)	13953	484	14437	1560	2966	255	4840	1569	560	11750	2688
10	Jute (R)	12910	7121	20031	240	1642	255	7200	1883	561	11781	8250
11	Sugarcane (R)	49132		49132	5000	3306	510	9720	1883	1021	21440	27692
12	Sugarcane (IR)											
13	Potato (L) (R)											
14	Potato (M) (R) (IR)	44828		44828	5600	3619	510	9240	2017	1049	22036	22792
15	Sweet Potato (R)	19655		19655	3275			5400	1345	501	10521	9134
16	Khesari (R)	4989	354	5343	479			1880		118	2477	2866
17	Lentil (R)	9374	354	9728	602			2800	1121	226	4749	4625
18	Chickpea (R)											
19	Mungbean (R)											
20	Mustard (R)	9466		9466	164	544	255	3280	1121	268	5632	3834
21	Groundnut (R)											
22	Sesame (R)											
23	Onion (R)	48276		48276	3600	1018		7800	2017	722	15157	33119
24	Garlic (R)											
25	Chilli (R)	32000		32000	40	1048	255	7200	1883	521	10947	21053
26	Tomato (R)											
27	Cabbage (IR)											
28	Cauliflower (IR)											

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SW7

Sl. No.	Name of Crop	Gross Income		Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power		Total	Excl. By product
1	B. Aus (L) (R)	6193	1886	8080	600	988		5000	1569	8565	-485	-2372
2	Aus (M) (IR) (R)	21034	2434	23468	330	1649	255	7600	1883	12303	11165	8731
3	B. Aman (L) (R)	8182	2264	10445	300			4080	1569	6246	4199	1935
4	T. Aman (L) (R) (IR)	10227	2830	13057	300	242	255	4600	1569	7314	5742	2913
5	T. Aman (M) (R) (IR)	21489	2219	23708	270	836	510	6400	1569	10065	13643	11424
6	Boro (L) (R) (IR)	12045	3773	15818	300	148	128	6680	1883	9595	6223	2450
7	Boro (M) (IR) (R)	31739	3508	35247	330	1876	510	8240	1883	13481	21766	18258
8	Wheat (M) (R)	10345	343	10688	1560	2053	255	4280	1569	10203	485	142
9	Wheat (M) (IR)	14605	484	15088	1560	2966	255	4840	1569	11750	3339	2855
10	Jute (R)	12910	7121	20031	240	1642	255	7200	1883	11781	8250	1129
11	Sugarcane (R)	49132		49132	5000	3306	510	9720	1883	21440	27692	27692
12	Sugarcane (IR)											
13	Potato (L) (R)											
14	Potato (M) (R) (IR)	44828		44828	5600	3619	510	9240	2017	22036	22792	22792
15	Sweet Potato (R)	19655		19655	3275			5400	1345	10521	9134	9134
16	Khesari (R)	5592	354	5946	479			1880		2477	3469	3115
17	Lentil (R)	9374	354	9728	602			2800	1121	4749	4979	4625
18	Chickpea (R)											
19	Mungbean (R)											
20	Mustard (R)	10420		10420	164	544	255	3280	1121	5632	4788	4788
21	Groundnut (R)											
22	Sesame (R)											
23	Onion (R)	48276		48276	3600	1018		7800	2017	15157	33119	33119
24	Garlic (R)											
25	Chilli (R)											
26	Tomato (R)											
27	Cabbage (IR)											
28	Cauliflower (IR)											

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SW8

Sl. No.	Name of Crop	Gross Income		Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power		Total	Excl. By product
1	B. Aus (L) (R)	6600	2169	8769	600	988		5067	1569	411	8635	135
2	Aus (M) (IR) (R)	15818	2076	17894	330	1649	255	6240	1883	518	10875	7020
3	B. Aman (L) (R)	7500	2264	9764	300			3536	1569	270	5675	4088
4	T. Aman (L) (R) (IR)	11875	3584	15459	300	242	255	4333	1569	335	7034	8425
5	T. Aman (M) (R) (IR)	21489	2219	23708	270	836	510	5547	1569	437	9169	14539
6	Boro (L) (R) (IR)	14063	4716	18778	300	148	128	6240	1883	435	9133	9645
7	Boro (M) (IR) (R)	23489	2792	26281	330	1876	510	6517	1883	556	11672	14608
8	Wheat (M) (R)	9884	343	10226	1560	2053	255	3709	1569	457	9604	623
9	Wheat (M) (IR)	13953	484	14437	1560	2966	255	4195	1569	527	11072	3365
10	Jute (R)	12910	7121	20031	240	1642	255	6240	1883	513	10773	9258
11	Sugarcane (R)	49132		49132	5000	3306	510	8424	1883	956	20079	29053
12	Sugarcane (IR)	59195		59195	5000	3899	510	9811	1883	1055	22158	37037
13	Potato (L) (R)											
14	Potato (M) (R) (IR)	44828		44828	5600	3619	510	8008	2017	988	20742	24085
15	Sweet Potato (R)	19655		19655	3275			5373	1345	500	10493	9162
16	Khesari (R)											
17	Lentil (R)	9374	354	9728	602			2427	1121	207	4357	5371
18	Chickpea (R)	9931	405	10336	567			2843	1121	227	4757	5579
19	Mungbean (R)											
20	Mustard (R)	9466		9466	164	544	255	2843	1121	246	5173	4293
21	Groundnut (R)											
22	Sesame (R)											
23	Onion (R)	48276		48276	3600	1018		6760	2017	670	14065	34211
24	Garlic (R)											
25	Chilli (R)	32000		32000	40	1048	255	6240	1883	473	9939	22061
26	Tomato (R)	34828		34828	50	2102	255	5235	1883	476	10001	24827
27	Cabbage (IR)											
28	Cauliflower (IR)											

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SW9

Sl. No.	Name of Crop	Gross Income		Variable Costs				Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power	Total	Excl. By product
1	B. Aus (L) (R)	6600	2169	8769	600	988		5200	1569	8775	-5
2	Aus (M) (IR) (R)	16972	2076	19048	330	1649	255	7200	1883	11883	7165
3	B. Aman (L) (R)	7500	2264	9764	300			4080	1569	6246	3517
4	T. Aman (L) (R) (IR)	11875	3584	15459	300	242	255	5000	1569	7734	7725
5	T. Aman (M) (R) (IR)	20080	2219	22299	270	836	510	6400	1569	10065	12234
6	Boro (L) (R) (IR)	14489	4716	19205	300	148	128	7200	1883	10141	9063
7	Boro (M) (IR) (R)	23489	2792	26281	330	1876	510	7520	1883	12725	13556
8	Wheat (M) (R)	9884	343	10226	1560	2053	255	4280	1569	10203	23
9	Wheat (M) (IR)	13953	484	14437	1560	2966	255	4840	1569	11750	2688
10	Jute (R)	12910	7121	20031	240	1642	255	7200	1883	11781	8250
11	Sugarcane (R)	49132		49132	5000	3306	510	9693	1883	21412	27720
12	Sugarcane (IR)	59195		59195	5000	3899	510	11320	1883	23743	35453
13	Potato (L) (R)										
14	Potato (M) (R) (IR)	37241		37241	5600	3619	510	9240	2017	22036	15205
15	Sweet Potato (R)										
16	Khesari (R)										
17	Lentil (R)	9374	354	9728	602			2800	1121	4749	4979
18	Chickpea (R)										
19	Mungbean (R)										
20	Mustard (R)	9466		9466	164	544	255	3280	1121	5632	3834
21	Groundnut (R)										
22	Sesame (R)										
23	Onion (R)	43908		43908	3600	1018		7800	2017	15157	28751
24	Garlic (R)										
25	Chilli (R)	32000		32000	40	1048	255	7200	1883	10947	21053
26	Tomato (R)	34828		34828	50	2102	255	6040	1883	10846	23981
27	Cabbage (IR)										
28	Cauliflower (IR)										

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SW10

Sl. No.	Name of Crop	Gross Income		Variable Costs				Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power	Total	Excl. By product
1	B. Aus (L) (R)	6600	2169	8769	600	988		5200	1569	8775	-2175
2	Aus (M) (IR) (R)	15818	2076	17894	330	1649	255	7200	1883	11883	3935
3	B. Aman (L) (R)	7500	2264	9764	300			4080	1569	6246	1254
4	T. Aman (L) (R) (IR)	11875	3584	15459	300	242	255	5000	1569	7734	4141
5	T. Aman (M) (R) (IR)	21489	1953	23442	270	836	510	6400	1569	10065	11424
6	Boro (L) (R) (IR)	14063	4716	18778	300	148	128	7200	1883	10141	3921
7	Boro (M) (IR) (R)	23489	2792	26281	330	1876	510	7520	1883	12725	10764
8	Wheat (M) (R)										
9	Wheat (M) (IR)										
10	Jute (R)	12910	7121	20031	240	1642	255	7200	1883	11781	1129
11	Sugarcane (R)	49132		49132	5000	3306	510	9693	1883	21412	27720
12	Sugarcane (IR)	59195		59195	5000	3899	510	11320	1883	23743	35453
13	Potato (L) (R)										
14	Potato (M) (R) (IR)	44828		44828	5600	3619	510	9240	2017	22036	22792
15	Sweet Potato (R)	19655		19655	3275			6200	1345	11361	8294
16	Khesari (R)	4989	354	5343	479			1880		2477	2512
17	Lentil (R)	9374	354	9728	602			2800	1121	4749	4625
18	Chickpea (R)										
19	Mungbean (R)										
20	Mustard (R)	9466		9466	164	544	255	3280	1121	5632	3834
21	Groundnut (R)	15682		15682	1784			6000	1255	9491	6191
22	Sesame (R)										
23	Onion (R)	48276		48276	3600	1018		7800	2017	15157	33119
24	Garlic (R)										
25	Chilli (R)	32000		32000	40	1048	255	7200	1883	10947	21053
26	Tomato (R)	34828		34828	50	2102	255	6040	1883	10846	23981
27	Cabbage (IR)	31218		31218	60	2332	255	7400	1883	12526	18692
28	Cauliflower (IR)										

Note : Excludes Irrigation Costs. (1) 5% all costs

Source : Consultants Estimates

(R) Rainfed. (L) Local

(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SW11

Sl. No.	Name of Crop	Gross Income			Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power			Total	Excl. By product
1	B. Aus (L) (R)	6600	2169	8769	600	988		5200	1569	418	8775	-5	-2175
2	Aus (M) (IR) (R)	14935	2076	17011	330	1649	255	7200	1883	566	11883	5128	3052
3	B. Aman (L) (R)	6818	2264	9082	300			4080	1569	297	6246	2835	572
4	T. Aman (L) (R) (IR)	10795	3584	14380	300	242	255	5000	1569	368	7734	6645	3061
5	T. Aman (M) (R) (IR)	22670	2506	25176	270	836	510	6680	1569	493	10359	14818	12312
6	Boro (L) (R) (IR)	11591	3773	15364	300	148	128	6680	1883	457	9595	5768	1996
7	Boro (M) (IR) (R)	25261	2792	28053	330	1876	510	7520	1883	606	12725	15328	12536
8	Wheat (M) (R)	9291	343	9633	1560	2053		4280		395	8288	1346	1003
9	Wheat (M) (IR)	13116	484	13600	1560	2966		4840		468	9834	3766	3282
10	Jute (R)	12910	7121	20031	240	1642	255	7200	1883	561	11781	8250	1129
11	Sugarcane (R)	49132		49132	5000	3306	510	9693	1883	1020	21412	27720	27720
12	Sugarcane (IR)												
13	Potato (L) (R)	24828		24828	5600	1764		7800		758	15922	8905	8905
14	Potato (M) (R) (IR)	37241		37241	5600	3619	510	9240	2017	1049	22036	15205	15205
15	Sweet Potato (R)												
16	Khesari (R)	4989	354	5343	479			1880		118	2477	2866	2512
17	Lentil (R)	9374	7251	16624	602			2800	1121	226	4749	11875	4625
18	Chickpea (R)												
19	Mungbean (R)												
20	Mustard (R)	9466		9466	164	544	255	3280	1121	268	5632	3834	3834
21	Groundnut (R)												
22	Sesame (R)												
23	Onion (R)	48276		48276	3600	1018		7800	2017	722	15157	33119	33119
24	Garlic (R)												
25	Chilli (R)	32000		32000	40	1048	255	7200	1883	521	10947	21053	21053
26	Tomato (R)	34828		34828	50	2102	255	6040	1883	516	10846	23981	23981
27	Cabbage (IR)												
28	Cauliflower (IR)												

Note : Excludes Irrigation Costs. (1) 5% all costs

Source : Consultants Estimates

(R) Rainfed. (L) Local

(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SW12

Sl. No.	Name of Crop	Gross Income			Variable Costs					Misc. Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power			Total	Excl. By product
1	B. Aus (L) (R)	6600	2169	8769	600	988		3900	1569	353	7410	1360	-810
2	Aus (M) (IR) (R)	16972	2076	19048	330	1649	255	5400	1883	476	9993	9055	6979
3	B. Aman (L) (R)	6818	2264	9082	300			3060	1569	246	5175	3906	1643
4	T. Aman (L) (R) (IR)	10795	3584	14380	300	242	255	3750	1569	306	6422	7958	4374
5	T. Aman (M) (R) (IR)	22670	2506	25176	270	836	510	5010	1569	410	8605	16571	14065
6	Boro (L) (R) (IR)	11591	3773	15364	300	148	128	5010	1883	373	7842	7522	3749
7	Boro (M) (IR) (R)	25261	2792	28053	330	1876	510	5640	1883	512	10751	17302	14510
8	Wheat (M) (R)	9291	343	9633	1560	2053	255	3210	1569	432	9079	554	211
9	Wheat (M) (IR)	13116	484	13600	1560	2966	255	3630	1569	499	10479	3121	2637
10	Jute (R)	12910	7121	20031	240	1642	255	5400	1883	471	9891	10140	3019
11	Sugarcane (R)	49132		49132	5000	3306	510	7270	1883	898	18868	30265	30265
12	Sugarcane (IR)												
13	Potato (L) (R)												
14	Potato (M) (R) (IR)	37241		37241	5600	3619	510	6930	2017	934	19610	17631	17631
15	Sweet Potato (R)												
16	Khesari (R)	4989	354	5343	479			1410		94	1983	3359	3005
17	Lentil (R)	9374	354	9728	602			2100	1121	191	4014	5714	5360
18	Chickpea (R)												
19	Mungbean (R)												
20	Mustard (R)	9466		9466	164	544	255	2460	1121	227	4771	4695	4695
21	Groundnut (R)	15682		15682	1784			4500	1255	377	7916	7766	7766
22	Sesame (R)												
23	Onion (R)	48276		48276	3600	1018		5850	2017	624	13110	35166	35166
24	Garlic (R)												
25	Chilli (R)	32000		32000	40	1048	255	5400	1883	431	9057	22943	22943
26	Tomato (R)	34828		34828	50	2102	255	4530	1883	441	9261	25567	25567
27	Cabbage (IR)												
28	Cauliflower (IR)	51293		51293	60	2332	296	5550	1883	506	10627	40666	40666

Note : Excludes Irrigation Costs. (1) 5% all costs

Source : Consultants Estimates

(R) Rainfed. (L) Local

(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SW13

Sl. No.	Name of Crop	Gross Income		Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour			Total	Excl. By product
1	B. Aus (L) (R)	6077	2169	8247	600	988		5200	418	8775	-528	-2698
2	Aus (M) (IR) (R)	16972	2076	19048	330	1649	255	7200	566	11883	7165	5089
3	B. Aman (L) (R)	7500	2264	9764	300			4080	297	6246	3517	1254
4	T. Aman (L) (R) (IR)	11875	3584	15459	300	242	255	5000	368	7734	7725	4141
5	T. Aman (M) (R) (IR)	22670	2506	25176	270	836	510	6680	493	10359	14818	12312
6	Boro (L) (R) (IR)	11250	3773	15023	300	148	128	6680	457	9595	5427	1655
7	Boro (M) (IR) (R)	21494	2792	24286	330	1876	510	7520	606	12725	11561	8769
8	Wheat (M) (R)	9884	343	10226	1560	2053	255	4280	486	10203	23	-319
9	Wheat (M) (IR)	13953	484	14437	1560	2966	255	4840	560	11750	2688	2204
10	Jute (R)	12910	7121	20031	240	1642	255	7200	561	11781	8250	1129
11	Sugarcane (R)	49132		49132	5000	3306	510	9693	1020	21412	27720	27720
12	Sugarcane (IR)	59195		59195	5000	3899	510	11320	1131	23743	35453	35453
13	Potato (L) (R)	29885		29885	5600	1764	255	7800	872	18308	11577	11577
14	Potato (M) (R) (IR)	44828		44828	5600	3619	510	9240	1049	22036	22792	22792
15	Sweet Potato (R)	19655		19655	3275			6200	541	11361	8294	8294
16	Khesari (R)	4989	354	5343	479			1880	118	2477	2866	2512
17	Lentil (R)	9374	354	9728	602			2800	226	4749	4979	4625
18	Chickpea (R)											
19	Mungbean (R)											
20	Mustard (R)	9466		9466	164	544	255	3280	268	5632	3834	3834
21	Groundnut (R)	15682		15682	1784			6000	452	9491	6191	6191
22	Sesame (R)	7118		7118	104			2640	137	2881	4237	4237
23	Onion (R)											
24	Garlic (R)											
25	Chilli (R)	32000		32000	40	1048	255	7200	521	10947	21053	21053
26	Tomato (R)											
27	Cabbage (IR)	31218		31218	60	2332	255	7400	596	12526	18692	18692
28	Cauliflower (IR)											

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SW14

Sl. No.	Name of Crop	Gross Income			Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power			Total	Excl. By product
1	B. Aus (L) (R)	6600	2169	8769	600	988		5200	1569	418	8775	5	2175
2	Aus (M) (IR) (R)	16972	2076	19048	330	1649	255	7200	1883	566	11883	7165	5089
3	B. Aman (L) (R)	6818	2264	9082	300			4080	1569	297	6246	2835	572
4	T. Aman (L) (R) (IR)	10795	3584	14380	300	242	255	5000	1569	368	7734	6645	3061
5	T. Aman (M) (R) (IR)	22670	2506	25176	270	836	510	6680	1569	493	10359	14818	12312
6	Boro (L) (R) (IR)	11591	3773	15364	300	148	128	6680	1883	457	9595	5768	1996
7	Boro (M) (IR) (R)	25261	2792	28053	330	1876	510	7520	1883	606	12725	15328	12536
8	Wheat (M) (R)	9291	343	9633	1560	2053	255	4280	1569	486	10203	-570	-912
9	Wheat (M) (IR)	13116	484	13600	1560	2966	255	4840	1569	560	11750	1850	1367
10	Jute (R)	12910	7121	20031	240	1642	255	7200	1883	561	11781	8250	1129
11	Sugarcane (R)	49132		49132	5000	3306	510	9693	1883	1020	21412	27720	27720
12	Sugarcane (IR)												
13	Potato (L) (R)												
14	Potato (M) (R) (IR)	37241		37241	5600	3619	510	9240	2017	1049	22036	15205	15205
15	Sweet Potato (R)	19655		19655	3275			6200	1345	541	11361	8294	8294
16	Khesari (R)	4989	354	5343	479			1880		118	2477	2866	2512
17	Lentil (R)												
18	Chickpea (R)												
19	Mungbean (R)												
20	Mustard (R)	9466		9466	164	544	255	3280	1121	268	5632	3834	3834
21	Groundnut (R)												
22	Sesame (R)	7118		7118	104			2640	941	184	3870	3249	3249
23	Onion (R)	50602		50602	3600	1018		7800	2017	722	15157	35445	35445
24	Garlic (R)												
25	Chilli (R)	32000		32000	40	1048	255	7200	1883	521	10947	21053	21053
26	Tomato (R)	34828		34828	50	2102	255	6040	1883	516	10846	23981	23981
27	Cabbage (IR)												
28	Cauliflower (IR)												

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SC1

Sl. No.	Name of Crop	Gross Income		Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power		Total	Excl. By product
1	B. Aus (L) (R)	5739	1886	7625	600	988		4333	1569	374	7864	-239
2	Aus (M) (IR) (R)	21057	2434	23491	330	1649	255	6587	1883	535	11239	12252
3	B. Aman (L) (R)	8182	2264	10445	300			3536	1569	270	5675	4770
4	T. Aman (L) (R) (IR)	10227	2830	13057	300	242	255	3987	1569	318	6670	6386
5	T. Aman (M) (R) (IR)	20080	2219	22299	270	836	510	5547	1569	437	9169	13130
6	Boro (L) (R) (IR)	11591	3773	15364	300	148	128	5789	1883	412	8660	6704
7	Boro (M) (R)	29511	3508	33019	330	1876	510	7141	1883	587	12327	20692
8	Wheat (M) (R)	10345	343	10688	1560	2053	255	3709	1569	457	9604	1084
9	Wheat (M) (IR)	14605	484	15088	1560	2966	255	4195	1569	527	11072	4016
10	Jute (R)	14113	7121	21234	240	1642	255	6240	1883	513	10773	10461
11	Sugarcane (R)	49132		49132	5000	3306	510	8424	1883	956	20079	29053
12	Sugarcane (IR)	59195		59195	5000	3899	510	9811	1883	1055	22158	37037
13	Potato (L) (R)	29885		29885	5600	1764	255	6760	2017	820	17216	12669
14	Potato (M) (R) (IR)	44828		44828	5600	3619	510	8008	2017	988	20742	24085
15	Sweet Potato (R)	19655		19655				5373	1345		6718	12937
16	Khesari (R)	4989	354	5343				1629			1629	3713
17	Lentil (R)	9374	354	9728	602			2427	1121	207	4357	5371
18	Chickpea (R)											
19	Mungbean (R)											
20	Mustard (R)	9466		9466	164	544	255	2843	1121	246	5173	4293
21	Groundnut (R)	15682	1110	16792				5200	1255		6455	10337
22	Sesame (R)											
23	Onion (R)	43908		43908	3600	1018		6760	2017	670	14065	29843
24	Garlic (R)	95080		95080	4010	1018		6760	2017	690	14496	80585
25	Chilli (R)											
26	Tomato (R)				50	2102				108		
27	Cabbage (IR)	31218		31218			255	6413	1883		8551	22667
28	Cauliflower (IR)	51293		51293			255	6413	1883		8551	42742

Note : Excludes Irrigation Costs. (1) 5% all costs

Source : Consultants Estimates

(R) Rainfed. (L) Local

(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SC2

Sl. No.	Name of Crop	Gross Income		Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour			Total	Excl. By product
1	B. Aus (L) (R)	5739	1886	7625	600	988		5000	408	8565	-940	-2836
2	Aus (M) (IR) (R)	21057	2434	23491	330	1649	255	7600	586	12303	11188	8754
3	B. Aman (L) (R)	7500	2264	9764	300			4600	323	6792	2971	708
4	T. Aman (L) (R) (IR)	9375	2830	12205	300	242	255	4080	322	6768	5436	2607
5	T. Aman (M) (R) (IR)	21489	2219	23708	270	836	510	6400	479	10065	13643	11424
6	Boro (L) (R) (IR)	12045	3773	15818	300	148	128	6680	457	9595	6223	2450
7	Boro (M) (IR) (R)	29511	3508	33019	330	1876	510	8240	642	13481	19538	16030
8	Wheat (M) (R)	9884	343	10226	1560	2053	255	4280	486	10203	23	-319
9	Wheat (M) (IR)											
10	Jute (R)	12910	7121	20031	240	1642	255	7200	561	11781	8250	1129
11	Sugarcane (R)	49132		49132	5000	3306	510	9720	1021	21440	27692	27692
12	Sugarcane (IR)											
13	Potato (L) (R)											
14	Potato (M) (R) (IR)											
15	Sweet Potato (R)	19655		19655				6200		7545	12110	12110
16	Kheshari (R)	4989	354	5343				1880		1880	3463	3109
17	Lentil (R)	9374	354	9728	602			2800	226	4749	4979	4625
18	Chickpea (R)											
19	Mungbean (R)											
20	Mustard (R)	9466		9466	164	544	255	3280	268	5632	3834	3834
21	Groundnut (R)											
22	Sesame (R)											
23	Onion (R)											
24	Garlic (R)											
25	Chilli (R)	26586		26586			255	7200		9338	17248	17248
26	Tomato (R)											
27	Cabbage (IR)	31218		31218			255	7400		9538	21680	21680
28	Cauliflower (IR)											

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SC3

Sl. No.	Name of Crop	Gross Income		Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power		Total	Excl. By product
1	B. Aus (L) (R)	6193	1866	8080	600	988		4333	1569	7865	215	-1672
2	Aus (M) (IR) (R)	21057	2434	23491	330	1649	255	6587	1883	11239	12252	9818
3	B. Aman (L) (R)	8182	2264	10445	300			3536	1569	5675	4770	2507
4	T. Aman (L) (R) (IR)	10227	2830	13057	300	242	255	3987	1569	6670	6386	3557
5	T. Aman (M) (R) (IR)	21489	2219	23708	270	836	510	5547	1569	9169	14539	12320
6	Boro (L) (R) (IR)	11591	3659	15250	300	148	128	5789	1883	8660	6590	2931
7	Boro (M) (IR) (R)	29511	3508	33019	330	1876	510	7141	1883	12327	20692	17184
8	Wheat (M) (R)	10345	343	10688	1560	2053	255	3709	1569	9604	1084	741
9	Wheat (M) (IR)											
10	Jute (R)	14113	7121	21234	240	1642	255	6240	1883	10773	10461	3340
11	Sugarcane (R)	49132		49132	5000	3306	510	8424	1883	20079	29053	29053
12	Sugarcane (IR)											
13	Potato (L) (R)	35402		35402	5600	1764	255	6760	2017	17216	18186	18186
14	Potato (M) (R) (IR)											
15	Sweet Potato (R)	19655		19655				5373	1345	6718	12937	12937
16	Khesari (R)	4989	354	5343				1629		1629	3713	3359
17	Lentil (R)	9374	354	9728	602			2427	1121	4357	5371	5017
18	Chickpea (R)											
19	Mungbean (R)											
20	Mustard (R)	10420		10420	164	544	255	2843	1121	5173	5248	5248
21	Groundnut (R)											
22	Sesame (R)											
23	Onion (R)											
24	Garlic (R)											
25	Chilli (R)	32000		32000			255	6240	1883	8378	23622	23622
26	Tomato (R)											
27	Cabbage (IR)	31218		31218			255	6413	1883	8551	22667	22667
28	Cauliflower (IR)											

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed.. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SC4

Sl. No.	Name of Crop	Gross Income		Variable Costs				Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power	Total	Excl. By product
1	B. Aus (L) (R)	7122	2169	9291	600	988		5200	1569	8775	-1653
2	Aus (M) (R) (R)	17960	2076	20036	330	1649	255	7200	1883	11883	6077
3	B. Aman (L) (R)	8182	2264	10445	300			4080	1569	6246	1935
4	T. Aman (L) (R) (R)	12955	3584	16539	300	242	255	5000	1569	7734	5220
5	T. Aman (M) (R) (R)	21489	2219	23708	270	836	510	6400	1569	10065	11424
6	Boro (L) (R) (R)	11591	3773	15364	300	148	128	6680	1883	9595	1996
7	Boro (M) (R) (R)	23489	2792	26281	330	1876	255	7520	1883	12457	11032
8	Wheat (M) (R)	10345	343	10688	1560	2053	255	4280	1569	10203	142
9	Wheat (M) (R)										
10	Jute (R)	14113	7121	21234	240	1642	255	7200	1883	11781	2332
11	Sugarcane (R)	49132		49132	5000	3306	510	9720	1883	21440	27692
12	Sugarcane (R)										
13	Potato (L) (R)	35402		35402	5600	1764	255	7800	2017	18308	17094
14	Potato (M) (R) (R)										
15	Sweet Potato (R)	19655		19655				6200	1345	7545	12110
16	Khesari (R)	4989	354	5343				1880		1880	3109
17	Lentil (R)	9374	354	9728	602			2800	1121	4749	4625
18	Chickpea (R)										
19	Mungbean (R)										
20	Mustard (R)	10420		10420	164	544	255	3280	1121	5632	4788
21	Groundnut (R)										
22	Sesame (R)										
23	Onion (R)										
24	Garlic (R)										
25	Chilli (R)	32000		32000			255	7200	1883	9338	22662
26	Tomato (R)										
27	Cabbage (R)	31218		31218			255	7400	1883	9538	21680
28	Cauliflower (R)										

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(R) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values Planning Unit : SC5

Sl. No.	Name of Crop	Gross Income			Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power			Total	Excl. By product
1	B. Aus (L) (R)	6600	2169	8769	600	988		6587	1589	487	10231	1481	3031
2	Aus (M) (IR) (R)	16972	2076	19048	330	1649	255	9120	1883	662	13899	5149	3073
3	B. Aman (L) (R)	7500	2264	9764	300			5168	1569	352	7389	2375	111
4	T. Aman (L) (R) (IR)	11875	3584	15459	300	242	255	6333	1569	435	9134	6325	2741
5	T. Aman (M) (R) (IR)	18670	2219	20890	270	836	510	8107	1569	565	11857	9033	6814
6	Boro (L) (R) (IR)	11591	3773	15364	300	148	128	8461	1883	546	11466	3898	125
7	Boro (M) (IR) (R)	23489	2792	26281	330	1876	255	9525	1883	693	14563	11718	8926
8	Wheat (M) (R)	9884	343	10226	1560	2053	255	5421	1569	543	11401	-1175	-1518
9	Wheat (M) (IR)	13953	484	14437	1560	2966	255	6131	1569	624	13105	1332	849
10	Jute (R)	12910	7121	20031	240	1642	255	9120	1883	657	13797	6234	-887
11	Sugarcane (R)	49132		49132	5000	3306	510	12312	1883	1151	24162	24971	24971
12	Sugarcane (IR)	59195		59195	5000	3899	510	14339	1883	1282	26912	32283	32283
13	Potato (L) (R)	29885		29885	5600	1764	255	9880	2017	976	20492	9393	9393
14	Potato (M) (R) (IR)	44828		44828	5600	3619	510	11704	2017	1173	24623	20204	20204
15	Sweet Potato (R)	19655		19655				7853	1345		9198	10457	10457
16	Khesari (R)	4989	354	5343				2381			2381	2961	2607
17	Lentil (R)	10339	354	10693	602			3547	1121	263	5533	5160	4806
18	Chickpea (R)												
19	Mungbean (R)												
20	Mustard (R)	9466		9466	164	544	255	4155	1121	312	6550	2915	2915
21	Groundnut (R)												
22	Sesame (R)												
23	Onion (R)												
24	Garlic (R)												
25	Chilli (R)	26586		26586			255	9120	1883		11258	15328	15328
26	Tomato (R)												
27	Cabbage (IR)	31218		31218			255	9373	1883		11511	19707	19707
28	Cauliflower (IR)												

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SC6

Sl. No.	Name of Crop	Gross Income		Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides 0.87	Labour 0.75			Total	Excl. By product
1	B. Aus (L) (R)	6600	2169	8769	600	988		6587	487	10231	-1461	-3631
2	Aus (M) (IR) (R)	17960	2076	20036	330	1649	255	9120	662	13899	6138	4061
3	B. Aman (L) (R)	7500	2264	9764	300			5168	352	7389	2375	111
4	T. Aman (L) (R) (IR)	11875	3584	15459	300	242	255	6333	435	9134	6325	2741
5	T. Aman (M) (R) (IR)	21489	2219	23708	270	836	510	8107	565	11857	11851	9632
6	Boro (L) (R) (IR)	12045	3773	15818	300	148	128	8461	546	11466	4353	580
7	Boro (M) (IR) (R)	23489	2792	26281	330	1876	510	9525	706	14831	11450	8658
8	Wheat (M) (R)	9884	343	10226	1560	2053	255	5421	543	11401	-1175	-1518
9	Wheat (M) (IR)	13953	484	18624	1560	2966	255	6131	624	13105	5519	849
10	Jute (R)	12910	7121	20031	240	1642	255	9120	657	13797	6234	-887
11	Sugarcane (R)	49132		49132	5000	3306	510	12312	1151	24162	24971	24971
12	Sugarcane (IR)											
13	Potato (L) (R)											
14	Potato (M) (R) (IR)	19655		19655				7853		9198	10457	10457
15	Sweet Potato (R)	435	354	789				2381		2381	-1592	-1946
16	Khesari (R)											
17	Lentil (R)											
18	Chickpea (R)											
19	Mungbean (R)											
20	Mustard (R)	9466		9466	164	544	255	4155	312	6550	2915	2915
21	Groundnut (R)											
22	Sesame (R)	7118		7118				3344		4285	2833	2833
23	Onion (R)											
24	Garlic (R)											
25	Chilli (R)	26586		26586			255	9120		11258	15328	15328
26	Tomato (R)											
27	Cabbage (IR)	31218		31218			255	9373		11511	19707	19707
28	Cauliflower (IR)	51293		51293			255	9373		11511	39782	39782

Note : Excludes Irrigation Costs, (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed, (L) Local
(IR) Irrigated, (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SC7

Sl. No.	Name of Crop	Gross Income		Variable Costs				Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power	Total	Excl. By product
1	B. Aus (L) (R)	7123	2169	9292	600	988		6587	1569	10231	-3108
2	Aus (M) (IR) (R)	17960	2076	20036	330	1649	255	9120	1883	13899	4061
3	B. Aman (L) (R)	8182	2264	10445	300			5168	1569	7389	793
4	T. Aman (L) (R) (IR)	12955	3584	16539	300	242	255	6333	1569	9134	3820
5	T. Aman (M) (R) (IR)	20080	2219	22299	270	836	510	8107	1569	11857	8223
6	Boro (L) (R) (IR)	12045	3773	15818	300	148	128	8461	1883	11466	580
7	Boro (M) (IR) (R)	25261	2792	28053	330	1876	510	9525	1883	14831	10431
8	Wheat (M) (R)	9884	343	10226	1560	2053	255	5421	1569	11401	-1518
9	Wheat (M) (IR)	13953	484	14437	1560	2966	255	6131	1569	13105	849
10	Jute (R)	12910	7121	20031	240	1642	255	9120	1883	13797	-887
11	Sugarcane (R)	49132		49132	5000	3306	510	12312	1883	24162	24971
12	Sugarcane (IR)	59195		59195	5000	3899	510	14339	1883	26912	32283
13	Potato (L) (R)										
14	Potato (M) (R) (IR)										
15	Sweet Potato (R)	19655		19655				7853	1345	9198	10457
16	Khesari (R)	4989	354	5343				2381		2381	2607
17	Lentil (R)										
18	Chickpea (R)										
19	Mungbean (R)	9000		9000				3091	628	3718	5282
20	Mustard (R)	9466		9466	164	544	255	4155	1121	6550	2915
21	Groundnut (R)										
22	Sesame (R)	7118		7118				3344	941	4285	2833
23	Onion (R)										
24	Garlic (R)										
25	Chilli (R)	32000		32000			255	9120	1883	11258	20742
26	Tomato (R)										
27	Cabbage (IR)	31218		31218			255	9373	1883	11511	19707
28	Cauliflower (IR)	51293		51293			255	9373	1883	11511	39782

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainted. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SC8

Sl. No.	Name of Crop	Gross Income			Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power			Total	Excl. By product
1	B. Aus (L) (R)	6600	2169	8769	600	988		6587	1569	487	10231	-1461	-3631
2	Aus (M) (IR) (R)	16972	2076	19048	330	1649	255	9120	1883	662	13899	5149	3073
3	B. Aman (L) (R)	7500	2264	9764	300			5168	1569	352	7389	2375	111
4	T. Aman (L) (R) (IR)	11875	3584	15459	300	242	255	6333	1569	435	9134	6325	2741
5	T. Aman (M) (R) (IR)	18670	2219	20890	270	836	510	8107	1569	565	11857	9033	6814
6	Boro (L) (R) (IR)	11591	3773	15364	300	148	128	8461	1883	546	11466	3898	125
7	Boro (M) (IR) (R)	21494	2792	24286	330	1876	510	9525	1883	706	14831	9456	6664
8	Wheat (M) (R)	9884	343	10226	1560	2053	255	5421	1569	543	11401	-1175	-1518
9	Wheat (M) (IR)	13953	484	14437	1560	2966	255	6131	1569	624	13105	1332	849
10	Jute (R)	12910	7121	20031	240	1642	255	9120	1883	657	13797	6234	-887
11	Sugarcane (R)	49132		49132	5000	3306	510	12312	1883	1151	24162	24971	24971
12	Sugarcane (IR)	59195		59195	5000	3899	510	14339	1883	1282	26912	32283	32283
13	Potato (L) (R)												
14	Potato (M) (R) (IR)												
15	Sweet Potato (R)	19655		19655				7853	1345		9198	10457	10457
16	Khesari (R)	4989	354	5343				2381	0		2381	2961	2607
17	Lentil (R)												
18	Chickpea (R)												
19	Mungbean (R)	9000		9000				3091	628		3718	5282	5282
20	Mustard (R)	9466		9466	164	544	255	4155	1121	312	6550	2915	2915
21	Groundnut (R)	17318		17318				7600	1255		8855	8463	8463
22	Sesame (R)	7118		7118				3344	941		4285	2833	2833
23	Onion (R)												
24	Garlic (R)												
25	Chilli (R)	32000		32000			255	9120	1883		11258	20742	20742
26	Tomato (R)												
27	Cabbage (IR)	31218		31218			255	9373	1883		11511	19707	19707
28	Cauliflower (IR)												

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SC9

Sl. No.	Name of Crop	Gross Income		Variable Costs				Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power	Total	Excl. By product
1	B. Aus (L) (R)	5739	1886	7625	600	988		6333	1569	9965	-4226
2	Aus (M) (R)	14045	1718	15764	330	1649	255	8613	1883	13367	679
3	B. Aman (L) (R)	7500	2264	9764	300			5168	1569	7389	111
4	T. Aman (L) (R) (IR)	11875	3584	15459	300	242	255	6333	1569	9134	2741
5	T. Aman (M) (R) (IR)	18670	2219	20890	270	836	510	8107	1569	11857	6814
6	Boro (L) (R) (IR)	7534	2452	9986	300	148	128	7499	1883	10455	-2921
7	Boro (M) (R) (R)	13778	1790	15568	330	1876	510	8259	1883	13501	278
8	Wheat (M) (R)	9884	343	10226	1560	2053	255	5421	1569	11401	-1518
9	Wheat (M) (IR)	13953	484	14437	1560	2966	255	6131	1569	13105	849
10	Jute (R)	12910	7121	20031	240	1642	255	9120	1883	13797	-887
11	Sugarcane (R)	49132		49132	5000	3306	510	12312	1883	24162	24971
12	Sugarcane (IR)	59195		59195	5000	3899	510	14339	1883	26912	32283
13	Potato (L) (R)										
14	Potato (M) (R) (IR)										
15	Sweet Potato (R)	19655		19655				7853	1345	9198	10457
16	Kheshari (R)	4989	354	5343				2381		2381	2607
17	Lentil (R)										
18	Chickpea (R)										
19	Mungbean (R)	9000		9000				3091	628	3718	5282
20	Mustard (R)										
21	Groundnut (R)	17318		17318				7600	1255	8855	8463
22	Sesame (R)	7118		7118				3344	941	4285	2833
23	Onion (R)										
24	Garlic (R)										
25	Chilli (R)	32000		32000			255	9120	1883	11258	20742
26	Tomato (R)										
27	Cabbage (IR)	31218		31218			255	9373	1883	11511	19707
28	Cauliflower (IR)										

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SC10

Sl. No.	Name of Crop	Gross Income			Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power			Total	Excl. By product
1	B. Aus (L) (R)	5739	1886	7625	600	988		6333	1569	475	9965	-2340	-4226
2	Aus (M) (IR) (R)	14045	1718	15764	330	1649	255	8613	1883	637	13367	2397	679
3	B. Aman (L) (R)	6818	2264	9082	300		0	5168	1569	352	7389	1693	-571
4	T. Aman (L) (R) (IR)	10795	3584	14380	300	242	255	6333	1569	435	9134	5245	1661
5	T. Aman (M) (R) (IR)	18670	2219	20890	270	836	510	8107	1569	565	11857	9033	6814
6	Boro (L) (R) (IR)	7534	2452	9986	300	148	128	7499	1883	498	10455	-468	-2921
7	Boro (M) (IR) (R)	15057	1790	16847	330	1876	510	8259	1883	643	13501	3346	1556
8	Wheat (M) (R)	9884	343	10226	1560	2053	255	5421	1569	543	11401	-1175	-1518
9	Wheat (M) (IR)	13953	484	14437	1560	2966	255	6131	1569	624	13105	1332	840
10	Jute (R)	12910	7121	20031	240	1642	255	9120	1883	657	13797	6234	-887
11	Sugarcane (R)	49132		49132	5000	3306	510	12312	1883	1151	24162	24971	24971
12	Sugarcane (IR)	59195		59195	5000	3899	510	14339	1883	1282	26912	32283	32283
13	Potato (L) (R)				5600	1764	0	0	0	368			
14	Potato (M) (R) (IR)	44828		44828	5600	3619	510	11704	2017	1173	24623	20204	20204
15	Sweet Potato (R)	19655		19655			0	7853	1345		9198	10457	10457
16	Khesari (R)	4989	354	5343			0	2381	0		2381	2961	2607
17	Lentil (R)				602		0	0	0	30			
18	Chickpea (R)						0	0	0				
19	Mungbean (R)						0	0	0				
20	Mustard (R)	9466		9466	164	544	255	4155	1121	312	6550	2915	2915
21	Groundnut (R)	15682		15682			0	7600	1255		8855	6827	6827
22	Sesame (R)						0	0	0				
23	Onion (R)				3600	1018	0	0	0	231			
24	Garlic (R)				4010	1018	0	0	0	251			
25	Chilli (R)	32000		32000			255	9120	1883		11258	20742	20742
26	Tomato (R)				50	2102	0	0	0	108			
27	Cabbage (IR)	31218		31218			255	9373	1883		11511	19707	19707
28	Cauliflower (IR)												

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SC11

Sl. No.	Name of Crop	Gross Income		Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power		Total	Excl. By product
1	B. Aus (L) (R)	6600	2169	8769	600	988		6587	1569	10231	-1461	-3631
2	Aus (M) (IR) (R)	16972	2076	19048	330	1649	255	9120	1883	13899	5149	3073
3	B. Aman (L) (R)	6818	2264	9082	300			5168	1569	7389	1693	-571
4	T. Aman (L) (R) (IR)	10795	3584	14380	300	242	255	6333	1569	9134	5245	1661
5	T. Aman (M) (R) (IR)	18670	2219	20890	270	836	510	8107	1569	11857	9033	6814
6	Boro (L) (R) (IR)	11591	3773	15364	300	148	128	8461	1883	11466	3898	125
7	Boro (M) (IR) (R)	23489	2792	26281	330	1876	510	9525	1883	14831	11450	8658
8	Wheat (M) (R)	9884	343	10226	1560	2053	255	5421	1569	11401	-1175	-1518
9	Wheat (M) (IR)	13953	484	14437	1560	2966	255	6131	1569	13105	1332	849
10	Jute (R)	12910	7121	20031	240	1642	255	9120	1883	13797	6234	-887
11	Sugarcane (R)	49132		49132	5000	3306	510	12312	1883	24162	24971	24971
12	Sugarcane (IR)	59195		59195	5000	3899	510	14339	1883	26912	32283	32283
13	Potato (L) (R)											
14	Potato (M) (R) (IR)											
15	Sweet Potato (R)	19655		19655				7853	1345	9198	10457	10457
16	Khesari (R)	4989	354	5343				2381		2381	2961	2607
17	Lentil (R)											
18	Chickpea (R)											
19	Mungbean (R)											
20	Mustard (R)	9466		9466	164	544	255	4155	1121	6550	2915	2915
21	Groundnut (R)											
22	Sesame (R)											
23	Onion (R)											
24	Garlic (R)											
25	Chilli (R)	32000		32000								
26	Tomato (R)											
27	Cabbage (IR)	31218		31218			255	9120	1883	11258	20742	20742
28	Cauliflower (IR)						255	9373	1883	11511	19707	19707

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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LS5

Crop Budgets at 1991 Financial Values by Planning Unit : SC12

Sl. No.	Name of Crop	Gross Income		Variable Costs				Misc. Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power	Total	Excl. By product
1	B. Aus (L) (R)	5739	1886	7625	600	988		5000	1569	8565	-2826
2	Aus (M) (IR) (R)	14045	1718	15764	330	1649	255	6800	1883	11463	2583
3	B. Aman (L) (R)	7500	2264	9764	300			4080	1569	6246	1254
4	T. Aman (L) (R) (IR)	11875	3584	15459	300	242	255	5000	1569	7734	4141
5	T. Aman (M) (R) (IR)	18670	2219	20890	270	836	510	6400	1569	10065	8606
6	Boro (L) (R) (IR)	7534	2452	9986	300	148	128	5920	1883	8797	-1263
7	Boro (M) (IR) (R)	13778	1790	15568	330	1876	510	6520	1883	11675	2103
8	Wheat (M) (R)	9884	343	10226	1560	2053	255	4280	1569	10203	-319
9	Wheat (M) (IR)	13953	484	14437	1560	2966	255	4840	1569	11750	2204
10	Jute (R)	12910	7121	20031	240	1642	255	7200	1883	11781	1129
11	Sugarcane (R)	49132		49132	5000	3306	510	9720	1883	21440	27692
12	Sugarcane (IR)	59195		59195	5000	3899	510	11320	1883	23743	35453
13	Potato (L) (R)										
14	Potato (M) (R) (IR)										
15	Sweet Potato (R)	19655		19655				6200	1345	7545	12110
16	Khesari (R)	4989	354	5343				1880		1880	3109
17	Lentil (R)										
18	Chickpea (R)										
19	Mungbean (R)										
20	Mustard (R)	9466		9466	164	544	255	3280	1121	5632	3834
21	Groundnut (R)										
22	Sesame (R)										
23	Onion (R)										
24	Garlic (R)										
25	Chilli (R)	32000		32000			255	7200	1883	9338	22662
26	Tomato (R)										
27	Cabbage (IR)	31218		31218			255	7400	1883	9538	21680
28	Cauliflower (IR)										

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Financial Values by Planning Unit : SC13

Sl. No.	Name of Crop	Gross Income		Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power		Total	Excl. By product
1	B. Aus (L) (R)	5739	1886	7625	600	988		6333	1569	475	9965	-2340
2	Aus (M) (IR) (R)	14045	1718	15764	330	1649	255	8613	1883	637	13367	2397
3	B. Aman (L) (R)	7500	2264	9764	300			5168	1569	352	7389	2375
4	T. Aman (L) (R) (IR)	11875	3584	15459	300	242	255	6333	1569	435	9134	6325
5	T. Aman (M) (R) (IR)	18670	2219	20890	270	836	510	8107	1569	565	11857	9033
6	Boro (L) (R) (IR)	7534	2452	9986	300	148	128	7499	1883	498	10455	-468
7	Boro (M) (IR) (R)	13778	1790	15568	330	1876	510	8259	1883	643	13501	2068
8	Wheat (M) (R)											
9	Wheat (M) (IR)	13953	484	14437	1560	2966	255	6131	1569	624	13105	1332
10	Jute (R)	12910	7121	20031	240	1642	255	9120	1883	657	13797	6234
11	Sugarcane (R)	49132		49132	5000	3306	510	12312	1883	1151	24162	24971
12	Sugarcane (IR)	59195		59195	5000	3899	510	14339	1883	1282	26912	32283
13	Potato (L) (R)											
14	Potato (M) (R) (IR)	53103		53103	5600	3619	510	11704	2017	1173	24623	28480
15	Sweet Potato (R)	19655		19655				7853	1345		9198	10457
16	Khesari (R)	4989	354	5343				2381			2381	2961
17	Lentil (R)											
18	Chickpea (R)											
19	Mungbean (R)	9000		9000				3091	628		3718	5282
20	Mustard (R)	9466		9466	164	544	255	4155	1121	312	6550	2915
21	Groundnut (R)	17318		17318				7600	1255		8855	8463
22	Sesame (R)											
23	Onion (R)											
24	Garlic (R)											
25	Chilli (R)	32000		32000			255	9120	1883		11258	20742
26	Tomato (R)											
27	Cabbage (IR)											
28	Cauliflower (IR)											

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Economic Values by Planning Unit : SW1

Sl. No.	Name of Crop	Gross Income		Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power		Total	Excl. By product
1	B. Aus (L) (R)	5808	1909	7717	528	929		3380	1365	310	6512	1205
2	Aus (M) (IR) (R)	14935	1827	16762	291	2043	222	4680	1638	444	9318	7444
3	B. Aman (L) (R)	6000	1992	7992	264			2652	1365	214	4495	3497
4	T. Aman (L) (R) (IR)	9500	3154	12654	264	390	222	3250	1365	275	5766	6888
5	T. Aman (M) (R) (IR)	17670	1953	19623	237	1386	444	4160	1365	380	7972	11651
6	Boro (L) (R) (IR)	12750	4150	16900	264	215	111	4680	1638	345	7253	9647
7	Boro (M) (IR) (R)	20670	2457	23127	291	3275	444	4888	1638	527	11063	12064
8	Wheat (M) (R)	12750	442	13192	2015	2331	222	2782	1365	436	9151	4041
9	Wheat (M) (IR)	18000	624	18624	2015	3983	222	3146	1365	537	11268	7356
10	Jute (R)	13685	7548	21233	254	1680	222	4680	1638	424	8898	12335
11	Sugarcane (R)	42745		42745	4750	4159	444	6318	1638	865	18174	24571
12	Sugarcane (IR)	51500		51500	4750	4882	444	7358	1638	954	20026	31474
13	Potato (L) (R)	21600		21600	4050	2242	222	5070	1755	667	14006	7594
14	Potato (M) (R) (IR)	32400		32400	4050	4449	444	6006	1755	835	17539	14861
15	Sweet Potato (R)			0							0	0
16	Khesari (R)			0							0	0
17	Lentil (R)	8155	303	8458	524			1820	975	166	3485	4973
18	Chickpea (R)			0							0	0
19	Mungbean (R)			0							0	0
20	Mustard (R)	8330		8330	143	821	222	2132	975	215	4508	3822
21	Groundnut (R)			0							0	0
22	Sesame (R)			0							0	0
23	Onion (R)	43050		43050	3132	972		5070	1755	546	11475	31575
24	Garlic (R)	82720		82720	3490	972		5070	1755	564	11851	70869
25	Chilli (R)			0							0	0
26	Tomato (R)	30300		30300	44	2416	222	3926	1638	412	8658	21642
27	Cabbage (IR)			0							0	0
28	Cauliflower (IR)			0							0	0

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Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

Crop Budgets at 1991 Economic Values by Planning Unit : SW2

Sl. No.	Name of Crop	Gross Income		Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power		Total	Excl. By product
1	B. Aus (L) (R)	5808	1909	7717	528	929		3380	1365	310	6512	1205
2	Aus (M) (R)	14935	1827	16762	291	2043	222	4680	1638	444	9318	7444
3	B. Aman (L) (R)	6600	1992	8592	264			2652	1365	214	4495	4097
4	T. Aman (L) (R) (IR)	10450	3154	13604	264	390	222	3250	1365	275	5766	7838
5	T. Aman (M) (R) (IR)	17670	1953	19623	237	1386	444	4160	1365	380	7972	11651
6	Boro (L) (R) (IR)	13250	4150	17400	264	215	111	4680	1638	345	7253	10147
7	Boro (M) (R) (R)	22230	2457	24687	291	3275	444	4888	1638	527	11063	13624
8	Wheat (M) (R)	11985	442	12427	2015	2331	222	2782	1365	436	9151	3276
9	Wheat (M) (IR)	16920	624	17544	2015	3983	222	3146	1365	537	11268	6276
10	Jute (R)	13685	7548	21233	254	1680	222	4680	1638	424	8898	12335
11	Sugarcane (R)	42745		42745	4750	4159	444	6318	1638	865	18174	24571
12	Sugarcane (IR)	51500		51500	4750	4882	444	7358	1638	954	20026	31474
13	Potato (L) (R)	26000		26000	4875	2242	222	5070	1755	708	14872	11128
14	Potato (M) (R) (IR)	39000		39000	4875	4449	444	6006	1755	876	18405	20595
15	Sweet Potato (R)	17100		17100	2850			4030	1170	403	8453	8647
16	Khesari (R)	4865	308	5173	417			1222		82	1721	3452
17	Lentil (R)	8155	308	8463	524			1820	975	166	3485	4978
18	Chickpea (R)			0							0	0
19	Mungbean (R)			0							0	0
20	Mustard (R)	7455		7455	128	821	222	2132	975	214	4492	2963
21	Groundnut (R)			0							0	0
22	Sesame (R)			0							0	0
23	Onion (R)	42000		42000	3132	972		5070	1755	546	11475	30525
24	Garlic (R)			0							0	0
25	Chilli (R)			0							0	0
26	Tomato (R)	30300		30300	44	2416	222	3926	1638	412	8658	21642
27	Cabbage (IR)	28000		28000	52	2814	222	4810	1638	477	10013	17987
28	Cauliflower (IR)			0							0	0

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Economic Values by Planning Unit : SW3

Sl. No.	Name of Crop	Gross Income		Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour			Total	Excl. By product
1	B. Aus (L) (R)	5050	1660	6710	792	929		3750	342	7178	-468	-2128
2	Aus (M) (IR) (R)	17510	2142	19652	291	2043	222	5700	495	10389	9263	7121
3	B. Aman (L) (R)	6600	1992	8592	264			3060	234	4923	3669	1677
4	T. Aman (L) (R) (IR)	8250	2490	10740	264	390	222	3450	285	5976	4764	2274
5	T. Aman (M) (R) (IR)	17670	1953	19623	237	1386	444	4800	412	8644	10979	9026
6	Boro (L) (R) (IR)	10200	3320	13520	264	215	111	5010	362	7600	5920	2600
7	Boro (M) (IR) (R)	25970	3087	29057	291	3275	444	6180	591	12419	16638	13551
8	Wheat (M) (R)	12750	442	13192	2015	2331	222	3210	457	9600	3592	3150
9	Wheat (M) (IR)	18000	624	18624	2015	3983	222	3630	561	11776	6848	6224
10	Jute (R)	13685	7548	21233	254	1680	222	5400	460	9654	11579	4031
11	Sugarcane (R)	42745		42745	4750	4159	444	7290	914	19195	23550	23550
12	Sugarcane (IR)			0						0	0	0
13	Potato (L) (R)			0						0	0	0
14	Potato (M) (R) (IR)			0						0	0	0
15	Sweet Potato (R)	17100		17100	2850			4650	435	9105	7995	7995
16	Khesari (R)			0						0	0	0
17	Lentil (R)	8155	308	8463	524			2100	180	3779	4684	4376
18	Chickpea (R)	8640	352	8992	567			2460	200	4202	4790	4438
19	Mungbean (R)			0						0	0	0
20	Mustard (R)	8330		8330	143	821	222	2460	231	4852	3478	3478
21	Groundnut (R)									0	0	0
22	Sesame (R)			0						0	0	0
23	Onion (R)	42000		42000	3132	972		5850	585	12294	29706	29706
24	Garlic (R)	77550		77550	3490	972		5850	604	12671	64879	64879
25	Chilli (R)	27840		27840	35	1015	222	5400	416	8726	19114	19114
26	Tomato (R)	30300		30300	44	2416	222	4530	442	9292	21008	21008
27	Cabbage (IR)	28000		28000	52	2814	222	5550	514	10790	17210	17210
28	Cauliflower (IR)			0						0	0	0

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Economic Values by Planning Unit : SW4

Sl. No.	Name of Crop	Gross Income		Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour			Total	Excl. By product
1	B. Aus (L) (R)	5348	1909	7257	528	929		3900	336	7058	199	-1710
2	Aus (M) (R)	14935	1827	16762	291	2043	222	5400	480	10074	6688	4861
3	B. Aman (L) (R)	6600	1992	8592	264			3060	234	4923	3669	1677
4	T. Aman (L) (R) (IR)	10450	3154	13604	264	390	222	3750	300	6291	7313	4159
5	T. Aman (M) (R) (IR)	17670	1953	19623	237	1386	444	4800	412	8644	10979	9026
6	Boro (L) (R) (IR)	12750	4150	16900	264	215	111	5400	381	8009	8891	4741
7	Boro (M) (R)	18915	2457	21372	291	3275	444	5640	564	11852	9520	7063
8	Wheat (M) (R)	13345	442	13787	2015	2331	222	3210	457	9600	4187	3745
9	Wheat (M) (IR)	18840	624	19464	2015	3983	222	3630	561	11776	7688	7064
10	Jute (R)	13685	7548	21233	254	1680	222	5400	460	9654	11579	4031
11	Sugarcane (R)	42745		42745	4750	4159	444	7290	914	19195	23550	23550
12	Sugarcane (IR)	51500		51500	4750	4882	444	8490	1010	21214	30286	30286
13	Potato (L) (R)	26000		26000	4875	2242	222	5850	747	15691	10309	10309
14	Potato (M) (R) (IR)	39000		39000	4875	4449	444	6930	923	19376	19624	19624
15	Sweet Potato (R)			0						0	0	0
16	Khesari (R)			0						0	0	0
17	Lentil (R)	8155	308	8463	524			2100	180	3779	4684	4376
18	Chickpea (R)	8640	352	8992	567			2460	200	4202	4790	4438
19	Mungbean (R)			0						0	0	0
20	Mustard (R)	9170		9170	143	821	222	2460	231	4852	4318	4318
21	Groundnut (R)									0	0	0
22	Sesame (R)			0						0	0	0
23	Onion (R)	42000		42000	3132	972		5850	585	12294	29706	29706
24	Garlic (R)			0						0	0	0
25	Chilli (R)	27840		27840	38	1015	222	5400	416	8729	19111	19111
26	Tomato (R)	30300		30300	44	2416	222	4530	442	9292	21008	21008
27	Cabbage (IR)			0						0	0	0
28	Cauliflower (IR)			0						0	0	0

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Economic Values by Planning Unit : SW5

Sl. No.	Name of Crop	Gross Income		Variable Costs				Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power	Total	Excl By product
1	B. Aus (L) (R)	5808	1909	7717	528	929		3900	1365	7058	659
2	Aus (M) (R) (R)	14935	1827	16762	291	2043	222	5400	1638	10074	4661
3	B. Aman (L) (R)	6600	1992	8592	264			3060	1365	4923	3669
4	T. Aman (L) (R) (R)	10450	3157	13607	264	390	222	3750	1365	6291	7316
5	T. Aman (M) (R) (R)	17670	1953	19623	237	1386	444	4800	1365	8644	10979
6	Boro (L) (R) (R)	12750	4150	16900	264	215	111	5400	1638	8009	8891
7	Boro (M) (R) (R)	20670	2457	23127	291	3275	444	5640	1638	11852	11275
8	Wheat (M) (R)	12750	442	13192	2015	2331	222	3210	1365	9600	3592
9	Wheat (M) (R)	18000	624	18624	2015	3983	222	3630	1365	11776	6848
10	Jute (R)	13685	7548	21233	254	1680	222	5400	1638	9654	11579
11	Sugarcane (R)	42745		42745	4750	4159	444	7270	1638	19175	23570
12	Sugarcane (R)	51500		51500	4750	4882	444	8490	1638	21214	30286
13	Potato (L) (R)			0						0	0
14	Potato (M) (R) (R)	39000		39000	4875	4449	444	6930	1755	19376	19624
15	Sweet Potato (R)	17100		17100	2850			4650	1170	9105	7995
16	Keshari (R)	4340	308	4648	372			1410		1871	2777
17	Lentil (R)	8155	308	8463	524			2100	975	3779	4684
18	Chickpea (R)			0						0	0
19	Mungbean (R)			0						0	0
20	Mustard (R)	8330		8330	143	821	222	2460	975	4852	3478
21	Groundnut (R)									0	0
22	Sesame (R)			0						0	0
23	Onion (R)	42000		42000	3132	972		5850	1755	12294	29706
24	Garlic (R)			0						0	0
25	Chilli (R)	27840		27840	38	1015	222	5400	1638	8729	19111
26	Tomato (R)	30300		30300	44	2416	222	4530	1638	9292	21008
27	Cabbage (R)	27160		27160	52	2814	222	5550	1638	10790	16370
28	Cauliflower (R)			0						0	0

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Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed, (L) Local
(R) Irrigated, (M) Modern

Crop Budgets at 1991 Economic Values by Planning Unit : SW6

Sl. No.	Name of Crop	Gross Income			Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power			Total	Excl. By product
1	B. Aus (L) (R)	5050	1660	6710	792	929		3750	1365	342	7178	-468	-2128
2	Aus (M) (R) (R)	17510	2142	19652	291	2043	222	5700	1638	495	10389	9263	7121
3	B. Aman (L) (R)	6600	1992	8592	264			3060	1365	234	4923	3669	1677
4	T. Aman (L) (R) (IR)	8250	2490	10740	264	390	222	3450	1365	285	5976	4764	2274
5	T. Aman (M) (R) (IR)	17670	1953	19623	237	1386	444	4800	1365	412	8644	10979	9026
6	Boro (L) (R) (IR)	10200	3320	13520	264	215	111	5010	1638	362	7600	5920	2600
7	Boro (M) (IR) (R)	25970	3087	29057	291	3275	444	6180	1638	591	12419	16638	13551
8	Wheat (M) (R)	12750	442	13192	2015	2331	222	3210	1365	457	9600	3592	3150
9	Wheat (M) (IR)	18000	624	18624	2015	3983	222	3630	1365	561	11776	6848	6224
10	Jute (R)	13685	7548	21233	254	1680	222	5400	1638	460	9654	11579	4031
11	Sugarcane (R)	42745		42745	4750	4159	444	7290	1638	914	19195	23550	23550
12	Sugarcane (IR)			0							0	0	0
13	Potato (L) (R)			0							0	0	0
14	Potato (M) (R) (IR)	39000		39000	4875	4449	444	6930	1755	923	19376	19624	19624
15	Sweet Potato (R)	17100		17100	2850			4050	1170	435	8505	8595	8595
16	Khesari (R)	4340	308	4648	372			1410		89	1871	2777	2469
17	Lentil (R)	8155	308	8463	524			2100	975	180	3779	4684	4376
18	Chickpea (R)			0							0	0	0
19	Mungbean (R)			0							0	0	0
20	Mustard (R)	8330		8330	143	821	222	2460	975	231	4852	3478	3478
21	Groundnut (R)										0	0	0
22	Sesame (R)			0							0	0	0
23	Onion (R)	42000		42000	3132	972		5850	1755	585	12294	29706	29706
24	Garlic (R)			0							0	0	0
25	Chilli (R)	27840		27840	38	1015	222	5400	1638	416	8729	19111	19111
26	Tomato (R)			0							0	0	0
27	Cabbage (IR)			0							0	0	0
28	Cauliflower (IR)			0							0	0	0

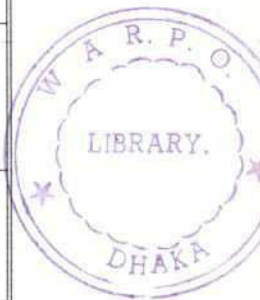
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Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

Crop Budgets at 1991 Economic Values by Planning Unit : SW7

Sl. No.	Name of Crop	Gross Income			Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power			Total	Excl. By product
1	B. Aus (L) (R)	5450	1660	7110	792	929		3750	1365	342	7178	-68	-1728
2	Aus (M) (IR) (R)	18510	2142	20652	291	2043	222	5700	1638	495	10389	10261	1121
3	B. Aman (L) (R)	7200	1992	9192	264			3060	1365	234	4923	4269	2277
4	T. Aman (L) (R) (IR)	9000	2490	11490	264	390	222	3450	1365	285	5976	5514	3024
5	T. Aman (M) (R) (IR)	18910	1953	20863	237	1386	444	4800	1365	412	8644	12219	10266
6	Boro (L) (R) (IR)	10600	3320	13920	264	215	111	5010	1638	362	7600	6320	3000
7	Boro (M) (IR) (R)	27930	3087	31017	291	3275	444	6180	1638	591	12419	18598	15511
8	Wheat (M) (R)	13345	442	13787	2015	2331	222	3210	1365	457	9600	4187	3745
9	Wheat (M) (IR)	18840	624	19464	2015	3983	222	3630	1365	561	11776	7688	7064
10	Jute (R)	13685	7548	21233	254	1680	222	5400	1638	460	9654	11579	4031
11	Sugarcane (R)	42745		42745	4750	4159	444	7290	1638	914	19195	23550	23550
12	Sugarcane (IR)			0							0	0	0
13	Potato (L) (R)			0							0	0	0
14	Potato (M) (R) (IR)	39000		39000	4875	4449	444	6930	1755	923	19376	19624	19624
15	Sweet Potato (R)	17100		17100	2850			4050	1170	435	8505	8595	8595
16	Keshari (R)	4865	308	5173	372			1410		89	1871	3302	2994
17	Lentil (R)	8155	308	8463	524			2100	975	180	3779	4684	4376
18	Chickpea (R)			0							0	0	0
19	Mungbean (R)			0							0	0	0
20	Mustard (R)	9170		9170	193	821	222	2460	975	231	4902	4268	4268
21	Groundnut (R)										0	0	0
22	Sesame (R)			0							0	0	0
23	Onion (R)	42000		42000	3132	972		5850	1755	585	12294	29706	29706
24	Garlic (R)			0							0	0	0
25	Chilli (R)			0							0	0	0
26	Tomato (R)			0							0	0	0
27	Cabbage (IR)			0							0	0	0
28	Cauliflower (IR)			0							0	0	0

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern



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Crop Budgets at 1991 Economic Values by Planning Unit : SW8

Taka/hactare

Sl. No.	Name of Crop	Gross Income		Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power		Total	Excl. By product
1	B. Aus (L) (R)	5808	1909	7717	528	929		3800	1365	8953	764	1145
2	Aus (M) (IR) (R)	13920	1827	15747	291	2043	222	4680	1638	9318	6429	4602
3	B. Aman (L) (R)	6600	1992	8592	264			2652	1365	4495	4097	2105
4	T. Aman (L) (R) (IR)	10450	3154	13604	264	390	222	3250	1365	5766	7838	4684
5	T. Aman (M) (R) (IR)	18910	1953	20863	237	1386	444	4160	1365	7972	12891	10938
6	Boro (L) (R) (IR)	12375	4150	16525	264	215	111	4680	1638	7253	9272	5122
7	Boro (M) (IR) (R)	20670	2457	23127	291	3275	444	4888	1638	11063	12064	9607
8	Wheat (M) (R)	12750	442	13192	2015	2331	222	2782	1365	9151	4041	3599
9	Wheat (M) (IR)	18000	624	18624	2015	3983	222	3146	1365	11268	7356	6732
10	Jute (R)	13685	7548	21233	254	1680	222	4680	1638	8898	12335	4787
11	Sugarcane (R)	42745		42745	4750	4159	444	6318	1638	18174	24571	24571
12	Sugarcane (IR)	51500		51500	4750	4882	444	7358	1638	20026	31474	31474
13	Potato (L) (R)			0						0	0	0
14	Potato (M) (R) (IR)	39000		39000	4875	4449	444	6006	1755	18405	20595	20595
15	Sweet Potato (R)	17100		17100	2850			4030	1170	8453	8647	8647
16	Khesari (R)			0						0	0	0
17	Lentil (R)	8155	308	8463	524			1820	975	3485	4978	4670
18	Chickpea (R)	8640	352	8992	567			2132	975	3858	5134	4782
19	Mungbean (R)			0						0	0	0
20	Mustard (R)	8330		8330	128	821	222	2132	975	4492	3838	3838
21	Groundnut (R)									0	0	0
22	Sesame (R)			0						0	0	0
23	Onion (R)	42000		42000	3132	972		5070	1755	11475	30525	30525
24	Garlic (R)			0						0	0	0
25	Chilli (R)	27840		27840	35	1015	222	4680	1638	7970	19870	19870
26	Tomato (R)	30300		30300	44	2416	222	3926	1638	8658	21642	21642
27	Cabbage (IR)			0						0	0	0
28	Cauliflower (IR)			0						0	0	0

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Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

Crop Budgets at 1991 Economic Values by Planning Unit : SW/9

Taka/hactare

Sl. No.	Name of Crop	Gross Income			Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power			Total	Excl. By product
1	B. Aus (L) (R)	5808	1909	7717	528	929		3900	1365	336	7058	659	-1250
2	Aus (M) (IR) (R)	14935	1827	16762	291	2043	222	5400	1638	480	10074	6688	4861
3	B. Aman (L) (R)	6600	1992	8592	264			3060	1365	234	4923	3669	1677
4	T. Aman (L) (R) (IR)	10450	3154	13604	264	390	222	3750	1365	300	6291	7313	4159
5	T. Aman (M) (R) (IR)	17670	1953	19623	237	1386	444	4800	1365	412	8644	10979	9026
6	Boro (L) (R) (IR)	12750	4150	16900	264	215	111	5400	1638	381	8009	8891	4741
7	Boro (M) (IR) (R)	20670	2457	23127	291	3275	444	5640	1638	564	11852	11275	8818
8	Wheat (M) (R)	12750	442	13192	2015	2331	222	3210	1365	457	9600	3592	3150
9	Wheat (M) (IR)	18000	624	18624	2015	3983	222	3630	1365	561	11776	6848	6224
10	Jute (R)	13685	7548	21233	254	1680	222	5400	1638	460	9654	11579	4031
11	Sugarcane (R)	42745		42745	4750	4159	444	7270	1638	914	19175	23570	23570
12	Sugarcane (IR)	51500		51500	4750	4882	444	8490	1638	1010	21214	30286	30286
13	Potato (L) (R)			0							0	0	0
14	Potato (M) (R) (IR)	32400		32400	4875	4449	444	6930	1755	923	19376	13024	13024
15	Sweet Potato (R)			0							0	0	0
16	Khesari (R)			0							0	0	0
17	Lentil (R)	8155	308	8463	524			2100	975	180	3779	4684	4376
18	Chickpea (R)			0							0	0	0
19	Mungbean (R)			0							0	0	0
20	Mustard (R)	8330		8330	143	821	222	2460	975	231	4852	3478	3478
21	Groundnut (R)										0	0	0
22	Sesame (R)			0							0	0	0
23	Onion (R)	38200		38200	3132	972		5850	1755	585	12294	25906	25906
24	Garlic (R)			0							0	0	0
25	Chilli (R)	27840		27840	38	1015	222	5400	1638	416	8729	19111	19111
26	Tomato (R)	30300		30300	44	2416	222	4530	1638	442	9292	21008	21008
27	Cabbage (IR)			0							0	0	0
28	Cauliflower (IR)			0							0	0	0

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Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

Crop Budgets at 1991 Economic Values by Planning Unit : SW10

Sl. No.	Name of Crop	Gross Income			Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power			Total	Excl. by product
1	B. Aus (L) (R)	5808	1909	7717	528	929		3900	1365	336	7058	659	-1250
2	Aus (M) (R) (R)	13920	1827	15747	281	2043	222	5400	1638	480	10074	5673	3846
3	B. Aman (L) (R)	6800	1992	8592	284			3060	1365	234	4923	3660	1677
4	T. Aman (L) (R) (R)	10450	3154	13604	264	390	222	3750	1365	300	6291	7313	4159
5	T. Aman (M) (R) (R)	18910	1953	20863	237	1386	444	4800	1365	412	8644	12219	10266
6	Boro (L) (R) (R)	12375	4150	16525	264	215	111	5400	1638	381	8009	8516	4366
7	Boro (M) (R) (R)	20670	2457	23127	291	3275	444	5640	1638	564	11852	11275	8818
8	Wheat (M) (R)			0							0	0	0
9	Wheat (M) (R)			0							0	0	0
10	Jute (R)	13685	7548	21233	254	1680	222	5400	1638	460	9654	11579	4031
11	Sugarcane (R)	42745		42745	4750	4159	444	7270	1638	914	19175	23570	23570
12	Sugarcane (R)	51500		51500	4750	4882	444	8490	1638	1010	21214	30286	30286
13	Potato (L) (R)			0							0	0	0
14	Potato (M) (R) (R)	39000		39000	4875	4449	444	6930	1755	923	19376	19624	19624
15	Sweet Potato (R)	17100		17100	2850			4650	1170	435	9105	7995	7995
16	Khesari (R)	4340	308	4648	372			1410		89	1871	2777	2469
17	Lentil (R)	8155	308	8463	524			2100	975	180	3779	4684	4376
18	Chickpea (R)			0							0	0	0
19	Mungbean (R)			0							0	0	0
20	Mustard (R)	8330		8330	143	821	222	2460	975	231	4852	3478	3478
21	Groundnut (R)	13800		13800	1552			4500	1092	357	7501	6299	6299
22	Sesame (R)			0							0	0	0
23	Onion (R)	42000		42000	3132	972		5850	1755	585	12294	29706	29706
24	Garlic (R)			0							0	0	0
25	Chilli (R)	27840		27840	38	1015	222	5400	1638	416	8729	19111	19111
26	Tomato (R)	30300		30300	44	2416	222	4530	1638	442	9292	21008	21008
27	Cabbage (R)	27160		27160	52	2814	222	5550	1638	514	10790	16370	16370
28	Cauliflower (R)			0							0	0	0

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Economic Values by Planning Unit : SW11

Sl. No.	Name of Crop	Gross Income		Variable Costs						Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power			Total	Excl. by product
1	B. Aus (L) (R)	5808	1909	7717	528	929		3900	1365	336	7058	659	-1250
2	Aus (M) (IR) (R)	14935	1827	16762	291	2043	222	5400	1638	480	10074	6688	4861
3	B. Aman (L) (R)	8000	1992	7992	264			3000	1365	234	4123	3000	1077
4	T. Aman (L) (R) (IR)	9500	3154	12654	264	390	222	3750	1365	300	6291	6363	3209
5	T. Aman (M) (R) (IR)	19950	2205	22155	237	1386	444	5010	1365	422	8864	13291	11086
6	Boro (L) (R) (IR)	10200	3320	13520	264	215	111	5010	1638	382	7620	5900	2580
7	Boro (M) (IR) (R)	22230	2457	24687	291	3275	444	5640	1638	564	11852	12835	10378
8	Wheat (M) (R)	11985	442	12427	2015	2331	222	3210	1365	457	9600	2827	2385
9	Wheat (M) (IR)	16920	624	17544	2015	3983	222	3630	1365	561	11776	5768	5144
10	Jute (R)	13685	7548	21233	254	1680	222	5400	1638	460	9654	11579	4031
11	Sugarcane (R)	42745		42745	4750	4159	444	7270	1638	914	19175	23570	23570
12	Sugarcane (IR)			0							0	0	0
13	Potato (L) (R)	21600		21600	4875	2242	222	5850	1755	747	15691	5909	5909
14	Potato (M) (R) (IR)	32400		32400	4875	4449	444	6930	1755	923	19376	13024	13024
15	Sweet Potato (R)			0							0	0	0
16	Khesari (R)	4340	308	4648	372			1410		89	1871	2777	2469
17	Lentil (R)	8155	308	8463	524			2100	975	180	3779	4684	4376
18	Chickpea (R)			0							0	0	0
19	Mungbean (R)			0							0	0	0
20	Mustard (R)	8330		8330	143	821	222	2460	975	231	4852	3478	3478
21	Groundnut (R)			0							0	0	0
22	Sesame (R)			0							0	0	0
23	Onion (R)	42000		42000	3132	972		5850	1755	585	12294	29706	29706
24	Garlic (R)			0							0	0	0
25	Chilli (R)	27840		27840	38	1015	222	5400	1638	416	8729	19111	19111
26	Tomato (R)	30300		30300	44	2416	222	4530	1638	442	9292	21008	21008
27	Cabbage (IR)			0							0	0	0
28	Cauliflower (IR)			0							0	0	0

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Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

Crop Budgets at 1991 Economic Values by Planning Unit : SW12

Sl. No.	Name of Crop	Gross Income		Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour			Total	Excl. lly product
1	B. Aus (L) (R)	5808	1909	7717	528	929		3900	336	7058	659	-1250
2	Aus (M) (R) (R)	14935	1827	16762	291	2043	222	5400	480	10074	6688	4861
3	B. Aman (L) (R)	6000	1092	7092	204			3000	214	4421	3000	1077
4	T. Aman (L) (R) (R)	9500	3154	12654	264	390	222	3750	300	6291	6363	3209
5	T. Aman (M) (R) (R)	19950	2205	22155	237	1386	444	5010	422	8864	13291	11086
6	Boro (L) (R) (R)	10200	3320	13520	264	215	111	5010	382	7620	5900	2580
7	Boro (M) (R) (R)	22230	2457	24687	291	3275	444	5640	564	11852	12835	10378
8	Wheat (M) (R)	11985	442	12427	2015	2331	222	3210	457	9600	2827	2385
9	Wheat (M) (R)	16920	624	17544	2015	3983	222	3630	561	11776	5768	5144
10	Jute (R)	13685	7548	21233	254	1680	222	5400	480	9654	11579	4031
11	Sugarcane (R)	42745		42745	4750	4159	444	7270	914	19175	23570	23570
12	Sugarcane (R)			0						0	0	0
13	Potato (L) (R)			0						0	0	0
14	Potato (M) (R) (R)	32400		32400	4875	4449	444	6930	923	19376	13024	13024
15	Sweet Potato (R)			0						0	0	0
16	Khesari (R)	4340	308	4648	372			1410	89	1871	2777	2469
17	Lentil (R)	8155	308	8463	524			2100	180	3779	4684	4376
18	Chickpea (R)			0						0	0	0
19	Mungbean (R)			0						0	0	0
20	Mustard (R)	8330		8330	143	821	222	2460	231	4852	3478	3478
21	Groundnut (R)	13800		13800	1552			4500	357	7501	6299	6299
22	Sesame (R)			0						0	0	0
23	Onion (R)	42000		42000	3132	972		5850	585	12294	29706	29706
24	Garlic (R)			0						0	0	0
25	Chilli (R)	27840		27840	38	1015	222	5400	416	8729	19111	19111
26	Tomato (R)	30300		30300	44	2416	222	4530	442	9292	21008	21008
27	Cabbage (R)			0						0	0	0
28	Cauliflower (R)	44625		44625	52	2814	222	5550	514	10790	33835	33835

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Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rained. (L) Local
(R) Irrigated. (M) Modern

Crop Budgets at 1991 Economic Values by Planning Unit : SW13

Sl. No.	Name of Crop	Gross Income		Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power		Total	Excl. By product
1	B. Aus (L) (R)	5348	1909	7257	528	929		3900	1365	7058	199	1710
2	Aus (M) (IR) (R)	14935	1827	16762	291	2043	222	5400	1638	10074	6688	4861
3	B. Aman (L) (R)	6600	1992	8592	264			3060	1365	4923	3069	1677
4	T. Aman (L) (R) (IR)	10450	3154	13604	264	390	222	3750	1365	6291	7313	4159
5	T. Aman (M) (R) (IR)	19950	2205	22155	237	1386	444	5010	1365	8864	13291	11086
6	Boro (L) (R) (IR)	9900	3320	13220	264	215	111	5010	1638	7620	5600	2280
7	Boro (M) (IR) (R)	18915	2457	21372	291	3275	444	5640	1638	11852	9520	7063
8	Wheat (M) (R)	12750	442	13192	2015	2331	222	3210	1365	9600	3592	3150
9	Wheat (M) (IR)	18000	624	18624	2015	3983	222	3630	1365	11776	6848	6224
10	Jute (R)	13685	7548	21233	254	1680	222	5400	1638	9654	11579	4031
11	Sugarcane (R)	42745		42745	4750	4159	444	7270	1638	19175	23570	23570
12	Sugarcane (IR)	51500		51500	4750	4882	444	8490	1638	21214	30286	30286
13	Potato (L) (R)	26000		26000	4875	2242	222	5850	1755	15691	10309	10309
14	Potato (M) (R) (IR)	39000		39000	4875	4449	444	6930	1755	19376	19624	19624
15	Sweet Potato (R)	17100		17100	2850			4650	1170	9105	7995	7995
16	Khesari (R)	4340	308	4648	372			1410		1871	2777	2469
17	Lentil (R)	8155	308	8463	524			2100	975	3779	4684	4376
18	Chickpea (R)			0						0	0	0
19	Mungbean (R)			0						0	0	0
20	Mustard (R)	8330		8330	143	821	222	2460	975	4852	3478	3478
21	Groundnut (R)	13800		13800	1552			4500	1092	7501	6299	6299
22	Sesame (R)	6264		6264	104			1980	819	3048	3216	3216
23	Onion (R)			0						0	0	0
24	Garlic (R)			0						0	0	0
25	Chilli (R)	27840		27840	38	1015	222	5400	1638	8729	19111	19111
26	Tomato (R)			0						0	0	0
27	Cabbage (IR)	27160		27160	52	2814	222	5550	1638	10790	16370	16370
28	Cauliflower (IR)			0						0	0	0

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Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

Crop Budgets at 1991 Economic Values by Planning Unit : SW14

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Sl. No.	Name of Crop	Gross Income			Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power			Total	Excl. By product
1	B. Aus (L) (R)	5808	1909	7717	528	929		3900	1365	336	7058	659	-1250
2	Aus (M) (R) (R)	14935	1827	16762	291	2043	222	5400	1638	480	10074	6688	4861
3	B. Aman (L) (R)	6000	1992	7992	264			3060	1365	234	4923	3069	1077
4	T. Aman (L) (R) (R)	9500	3154	12654	264	390	222	3750	1365	300	6291	6363	3209
5	T. Aman (M) (R) (R)	19950	2205	22155	237	1386	444	5010	1365	422	8864	13291	11086
6	Boro (L) (R) (R)	10200	3320	13520	264	215	111	5010	1638	392	7620	5900	2580
7	Boro (M) (R) (R)	22230	2457	24687	291	3275	444	5640	1638	564	11852	12835	10378
8	Wheat (M) (R)	11985	442	12427	2015	2331	222	3210	1365	457	9600	2827	2385
9	Wheat (M) (R)	16920	624	17544	2015	3983	222	3630	1365	561	11776	5768	5144
10	Jute (R)	13685	7548	21233	254	1680	222	5400	1638	460	9654	11579	4031
11	Sugarcane (R)	42745		42745	4750	4159	444	7270	1638	914	19175	23570	23570
12	Sugarcane (R)			0							0	0	0
13	Potato (L) (R)			0							0	0	0
14	Potato (M) (R) (R)	32400		32400	4875	4449	444	6930	1755	923	19376	13024	13024
15	Sweet Potato (R)	17100		17100	2850			4650	1170	435	9105	7995	7995
16	Khesari (R)	4340	308	4648	372			1410		89	1871	2777	2469
17	Lentil (R)			0							0	0	0
18	Chickpea (R)			0							0	0	0
19	Mungbean (R)			0							0	0	0
20	Mustard (R)	8330		8330	143	821	222	2460	975	231	4852	3478	3478
21	Groundnut (R)			0							0	0	0
22	Sesame (R)	6264		6264	104			1980	819	145	3048	3216	3216
23	Onion (R)	42000		42000	3132	972		5850	1755	585	12294	29706	29706
24	Garlic (R)			0							0	0	0
25	Chilli (R)	27840		27840	38	1015	222	5400	1638	416	8729	19111	19111
26	Tomato (R)	30300		30300	44	2416	222	4530	1638	442	9292	21008	21008
27	Cabbage (R)			0							0	0	0
28	Cauliflower (R)			0							0	0	0

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Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(M) Irrigated. (R) Modern

Crop Budgets at 1991 Economic Values by Planning Unit : SC1

Sl. No.	Name of Crop	Gross Income		Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour			Total	Excl. By product
1	B. Aus (L) (R)	5050	1660	6710	792	929		3250	217	6553	157	-1503
2	Aus (M) (IR) (R)	18530	2142	20672	291	2043	222	4940	457	9591	11081	8939
3	B. Aman (L) (R)	7200	1992	9192	264			2652	214	4495	4697	2705
4	T. Aman (L) (R) (IR)	9000	2490	11490	264	390	222	2990	262	5493	5997	3507
5	T. Aman (M) (R) (IR)	17670	1953	19623	237	1386	444	4160	380	7972	11651	9698
6	Boro (L) (R) (IR)	10200	3320	13520	264	215	111	4342	329	6899	6621	3301
7	Boro (M) (IR) (R)	25970	3087	29057	291	3275	444	5356	550	11554	17503	14416
8	Wheat (M) (R)	13345	442	13787	2015	2331	222	2782	436	9151	4636	4194
9	Wheat (M) (IR)	18840	624	19464	2015	3644	222	3146	520	10912	8552	7928
10	Jute (R)	14960	7548	22508	254	1680	222	4680	424	8898	13610	6062
11	Sugarcane (R)	42745		42745	4750	4159	444	6318	865	18174	24571	24571
12	Sugarcane (IR)	51500		51500	4750	4882	444	7358	954	20026	31474	31474
13	Potato (L) (R)	26000		26000	4875	2242	222	5070	708	14872	11128	11128
14	Potato (M) (R) (IR)	39000		39000	4875	4449	444	6006	876	18405	20595	20595
15	Sweet Potato (R)	17100		17100	2850			4030	403	8453	8647	8647
16	Khesari (R)	4340	308	4648	372			1222	80	1674	2974	2666
17	Lentil (R)	8155	308	8463	524			1820	166	3485	4978	4670
18	Chickpea (R)											
19	Mungbean (R)											
20	Mustard (R)	8330		8330	143	821	222	2132	215	4508	3822	3822
21	Groundnut (R)	13800	977	14777	1553			3900	327	6872	7905	6928
22	Sesame (R)											
23	Onion (R)	38200		38200	3132	972		5070	546	11475	26725	26725
24	Garlic (R)	82720		82720	3490	972		5070	564	11851	70869	70869
25	Chilli (R)											
26	Tomato (R)											
27	Cabbage (IR)	27160		27160	52	2814	222	4810	474	10010	17150	17150
28	Cauliflower (IR)	44625		44625	52	2814	222	4810	477	10013	34612	34612

Note : Excludes Irrigation Costs. (1) 5% all costs

Source : Consultants Estimates

(R) Rainfed. (L) Local

(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Economic Values by Planning Unit : SC2

Sl. No.	Name of Crop	Gross Income		Variable Costs				Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power	Total	Excl. By product
1	B. Aus (L) (R)	5050	1660	6710	792	929		3750	1365	7178	-2128
2	Aus (M) (IR) (R)	18530	2142	20672	291	2043	222	5700	1638	10389	8141
3	B. Aman (L) (R)	6600	1992	8592	264			3450	1365	5333	1267
4	T. Aman (L) (R) (IR)	8250	2490	10740	264	390	222	3060	1365	5566	2684
5	T. Aman (M) (R) (IR)	18910	1953	20863	237	1386	444	4800	1365	8644	10266
6	Boro (L) (R) (IR)	10600	3320	13920	264	215	111	5010	1638	7600	3000
7	Boro (M) (IR) (R)	25970	3087	29057	291	3275	444	6180	1638	12419	13551
8	Wheat (M) (R)	12750	442	13192	2015	2331	222	3210	1365	9600	3150
9	Wheat (M) (IR)										
10	Jute (R)	13685	7548	21233	254	1680	222	5400	1638	9654	4031
11	Sugarcane (R)	42745		42745	4750	4159	444	7290	1638	19195	23550
12	Sugarcane (IR)										
13	Potato (L) (R)										
14	Potato (M) (R) (IR)										
15	Sweet Potato (R)	17100		17100	2850			4650	1170	9104	7996
16	Khesari (R)	4340	308	4648	372			1410		1871	2469
17	Lentil (R)	8155	308	8463	524			2100	975	3779	4376
18	Chickpea (R)										
19	Mungbean (R)										
20	Mustard (R)	8330		8330	143	821	222	2460	975	4852	3478
21	Groundnut (R)										
22	Sesame (R)										
23	Onion (R)										
24	Garlic (R)										
25	Chilli (R)	23130		23130	29	1015	222	5400	1638	8719	14411
26	Tomato (R)										
27	Cabbage (IR)	27160		27160	52	2814	222	5550	1638	10790	16370
28	Cauliflower (IR)										

Note : Excludes Irrigation Costs. (1) 5% all costs

Source : Consultants Estimates

(R) Rainfed. (L) Local

(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Economic Values by Planning Unit : SC3

Sl. No.	Name of Crop	Gross Income			Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power			Total	Excl. By product
1	B. Aus (L) (R)	5450	1660	7110	792	929		3250	1365	217	6553	557	-1103
2	Aus (M) (IR) (R)	18530	2142	20672	291	2043	222	4940	1638	457	9591	11081	8939
3	B. Aman (L) (R)	7200	1992	9192	264			2652	1365	214	4495	4697	2705
4	T. Aman (L) (R) (IR)	9000	2490	11490	264	390	222	2990	1365	262	5493	5997	3507
5	T. Aman (M) (R) (IR)	18910	1953	20863	237	1386	444	4160	1365	380	7972	12891	10938
6	Boro (L) (R) (IR)	10200	3220	13420	264	215	111	4342	1638	329	6899	6521	3301
7	Boro (M) (IR) (R)	25970	3087	29057	291	3275	444	5356	1638	550	11554	17503	14416
8	Wheat (M) (R)	13345	442	13787	2015	2331	222	2782	1365	436	9151	4636	4194
9	Wheat (M) (IR)												
10	Jute (R)	14960	7548	22508	254	1680	222	4680	1638	424	8898	13610	6062
11	Sugarcane (R)	42745		42745	4750	4159	444	6318	1638	865	18174	24571	24571
12	Sugarcane (IR)												
13	Potato (L) (R)	30800		30800	5775	2242	222	5070	1755	753	15817	14983	14983
14	Potato (M) (R) (IR)												
15	Sweet Potato (R)	17100		17100	2850			4030	1170	402	8452	8648	8648
16	Keshari (R)	4340	308	4648	372			1222		80	1674	2974	2666
17	Lentil (R)	8155	308	8463	524			1820	975	166	3485	4978	4670
18	Chickpea (R)												
19	Mungbean (R)												
20	Mustard (R)	9170		9170	157	821	222	2132	975	215	4522	4648	4648
21	Groundnut (R)												
22	Sesame (R)												
23	Onion (R)												
24	Garlic (R)												
25	Chilli (R)	27840		27840	35	1015	222	4680	1638	380	7970	19870	19870
26	Tomato (R)												
27	Cabbage (IR)	27160		27160	52	2814	222	4810	1638	477	10013	17147	17147
28	Cauliflower (IR)												

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Economic Values by Planning Unit : SC4

Sl. No.	Name of Crop	Gross Income		Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour			Total	Excl. By product
1	B. Aus (L) (R)	6267	1909	8176	792	929		3900	349	7335	841	-1068
2	Aus (M) (IR) (R)	15805	1827	17632	291	2043	222	5400	480	10074	7558	5731
3	B. Aman (L) (R)	7200	1992	9192	264			3060	234	4923	4269	2277
4	T. Aman (L) (R) (IR)	11400	3154	14554	264	390	222	3750	300	6291	8263	5109
5	T. Aman (M) (R) (IR)	18910	1953	20863	237	1386	444	4800	412	8644	12219	10266
6	Boro (L) (R) (IR)	10200	3320	13520	264	215	111	5010	362	7600	5920	2600
7	Boro (M) (IR) (R)	20670	2457	23127	291	3275	222	5640	553	11619	11508	9051
8	Wheat (M) (R)	13345	442	13787	2015	2331	222	3210	457	9600	4187	3745
9	Wheat (M) (IR)											
10	Jute (R)	14960	7548	22508	254	1680	222	5400	460	9654	12854	5306
11	Sugarcane (R)	42745		42745	4750	4159	444	7290	914	19195	23550	23550
12	Sugarcane (IR)											
13	Potato (L) (R)	30800		30800	5775	2242	222	5850	792	16636	14164	14164
14	Potato (M) (R) (IR)											
15	Sweet Potato (R)	17100		17100	2850			4650	434	9104	7997	7997
16	Khesari (R)	4340	308	4648	372			1410	89	1871	2777	2469
17	Lentil (R)	8155	308	8463	524			2100	180	3779	4684	4376
18	Chickpea (R)											
19	Mungbean (R)											
20	Mustard (R)	9170		9170	157	821	222	2460	232	4867	4303	4303
21	Groundnut (R)											
22	Sesame (R)											
23	Onion (R)											
24	Garlic (R)											
25	Chilli (R)	27840		27840	35	1015	222	5400	416	8726	19115	19115
26	Tomato (R)											
27	Cabbage (IR)	27160		27160	52	2814	222	5550	514	10790	16370	16370
28	Cauliflower (IR)											

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Economic Values Planning Unit : SC5

Taka/hactare

Sl. No.	Name of Crop	Gross Income		Variable Costs				Bullock Power	Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour			Total	Excl. By product
1	B. Aus (L) (R)	5808	1909	7717	792	929		4940	401	8427	710	2619
2	Aus (M) (IR) (R)	14935	1827	16762	291	2043	222	6840	552	11586	5176	3349
3	B. Aman (L) (R)	6600	1992	8592	264			3876	275	5780	2812	820
4	T. Aman (L) (R) (IR)	10450	3154	13604	264	390	222	4750	350	7341	6263	3109
5	T. Aman (M) (R) (IR)	16430	1953	18383	237	1386	444	6080	476	9988	8395	6442
6	Boro (L) (R) (IR)	10200	3320	13520	264	215	111	6346	429	9003	4517	1197
7	Boro (M) (IR) (R)	20670	2457	23127	291	3275	222	7144	629	13199	9929	7472
8	Wheat (M) (R)	12750	442	13192	2015	2331	222	4066	500	10499	2693	2251
9	Wheat (M) (IR)	18000	624	18624	2015	3983	222	4598	609	12792	5832	5208
10	Jute (R)	13685	7548	21233	254	1680	222	6840	532	11166	10067	2519
11	Sugarcane (R)	42745		42745	4750	4159	444	9234	1011	21236	21509	21509
12	Sugarcane (IR)	51500		51500	4750	4882	444	10754	1123	23591	27909	27909
13	Potato (L) (R)	26000		26000	4875	2242	222	7410	825	17329	8671	8671
14	Potato (M) (R) (IR)	39000		39000	4875	4449	444	8778	1015	21316	17684	17684
15	Sweet Potato (R)	17100		17100	2850			5890	496	10406	6695	6695
16	Khesari (R)	4340	308	4648	372			1786	108	2266	2382	2074
17	Lentil (R)	8995	308	9303	578			2660	211	4424	4879	4571
18	Chickpea (R)											
19	Mungbean (R)	8330		8330	143	821	222	3116	264	5541	2789	2789
20	Mustard (R)											
21	Groundnut (R)											
22	Sesame (R)											
23	Onion (R)											
24	Garlic (R)											
25	Chilli (R)	23130		23130	35	1015	222	6840	488	10238	12893	12893
26	Tomato (R)											
27	Cabbage (IR)	27160		27160	52	2814	222	7030	588	12344	14816	14816
28	Cauliflower (IR)											

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Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

Crop Budgets at 1991 Economic Values by Planning Unit : SC6

Sl. No.	Name of Crop	Gross Income		Variable Costs				Misc. Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power	Total	Excl. By product
1	B. Aus (L) (R)	5808	1909	7717	792	929		4940	1365	8427	-2819
2	Aus (M) (R) (R)	15805	1827	17632	291	2043	222	6840	1638	11586	4219
3	B. Aman (L) (R)	6600	1992	8592	264			3876	1365	5780	820
4	T. Aman (L) (R) (R)	10450	3154	13604	264	390	222	4750	1365	7341	3109
5	T. Aman (M) (R) (R)	18910	1953	20863	237	1386	444	6080	1365	9988	8922
6	Boro (L) (R) (R)	10600	3320	13920	264	215	111	6346	1638	9003	1597
7	Boro (M) (R) (R)	20670	2457	23127	291	3275	444	7144	1638	13432	7238
8	Wheat (M) (R)	12750	442	13192	2015	2331	222	4066	1365	10499	2251
9	Wheat (M) (R)	18000	624	18624	2015	3983	222	4598	1365	12792	5208
10	Jute (R)	13685	7548	21233	254	1680	222	6840	1638	11166	2519
11	Sugarcane (R)	42745		42745	4750	4159	444	9234	1638	21236	21509
12	Sugarcane (R)										
13	Potato (L) (R)										
14	Potato (M) (R) (R)	17100		17100	2850			5890	1170	10406	6695
15	Sweet Potato (R)	4340	308	4648	372			1786		2266	2074
16	Khesari (R)										
17	Lentil (R)										
18	Chickpea (R)										
19	Mungbean (R)										
20	Mustard (R)	8330		8330	143	821	222	3116	975	5541	2789
21	Groundnut (R)										
22	Sesame (R)	6264		6264	104			2508	819	3603	2661
23	Onion (R)										
24	Garlic (R)										
25	Chilli (R)	23130		23130	35	1015	222	6840	1638	10238	12893
26	Tomato (R)										
27	Cabbage (R)	27160		27160	52	2814	222	7030	1638	12344	14816
28	Cauliflower (R)	44625		44625	52	2814	222	7030	1638	12344	32281

Note : Excludes Irrigation Costs. (1) 5% all costs

Source : Consultants Estimates

(R) Rainfed, (L) Local

(IR) Irrigated, (M) Modern

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Crop Budgets at 1991 Economic Values by Planning Unit : SC7

Sl. No.	Name of Crop	Gross Income		Variable Costs				Min. Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power	Total	Excl. By product
1	B. Aus (L) (R)	6268	1909	8177	528	929		4940	1365	8150	-1882
2	Aus (M) (IR) (R)	15805	1827	17632	291	2043	222	6840	1638	11586	4219
3	B. Aman (L) (R)	7200	1992	9192	264			3876	1365	5780	1420
4	T. Aman (L) (R) (IR)	11400	3154	14554	264	390	222	4750	1365	7341	4059
5	T. Aman (M) (R) (IR)	17670	1953	19623	237	1386	444	6080	1365	9988	7682
6	Boro (L) (R) (IR)	10600	3320	13920	264	215	111	6346	1638	9003	1597
7	Boro (M) (IR) (R)	22230	2457	24687	291	3275	444	7144	1638	13432	8798
8	Wheat (M) (R)	12750	442	13192	2015	2331	222	4066	1365	10499	2251
9	Wheat (M) (IR)	18000	624	18624	2015	3983	222	4598	1365	12792	5208
10	Jute (R)	13685	7548	21233	254	1680	222	6840	1638	11166	2519
11	Sugarcane (R)	42745		42745	4750	4159	444	9234	1638	21236	21509
12	Sugarcane (IR)	51500		51500	4750	4882	444	10754	1638	23591	27909
13	Potato (L) (R)										
14	Potato (M) (R) (IR)										
15	Sweet Potato (R)	17100		17100	2850			5890	1170	10406	6695
16	Khesari (R)	4340	308	4648	372			1786		2266	2074
17	Lentil (R)										
18	Chickpea (R)										
19	Mungbean (R)	7830		7830	470			2318	546	3501	4329
20	Mustard (R)	8330		8330	143	821	222	3116	975	5541	2789
21	Groundnut (R)										
22	Sesame (R)	6264		6264	104			2508	819	3603	2661
23	Onion (R)										
24	Garlic (R)										
25	Chilli (R)	27840		27840	38	1015	222	6840	1638	10241	17599
26	Tomato (R)										
27	Cabbage (IR)	27160		27160	52	2814	222	7030	1638	12344	14816
28	Cauliflower (IR)	44625		44625	52	2814	222	7030	1638	12344	32281

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Economic Values by Planning Unit : SC8

Sl. No.	Name of Crop	Crop	Gross Income		Seed	Variable Costs			Bullock Power	Misc Costs (1)	Total variable cost	Gross Margin	
			By Product	Total		Manures and Fertiliser	Pesticides	Labour				Total	Excl. By product
1	B. Aus (L) (R)	5808	1909	7717	528	929		4940	1365	388	8150	4313	2342
2	Aus (M) (R)	14935	1827	16762	291	2043	222	6840	1638	552	11586	5176	3349
3	B. Aman (L) (R)	6600	1992	8592	264			3876	1365	275	5780	2812	820
4	T. Aman (L) (R) (IR)	10450	3154	13604	264	390	222	4750	1365	350	7341	6263	3109
5	T. Aman (M) (R) (IR)	16430	1953	18383	237	1386	444	6080	1365	476	9988	8395	6442
6	Boro (L) (R) (IR)	10200	3320	13520	264	215	111	6346	1638	429	9003	4517	1197
7	Boro (M) (R) (R)	18915	2457	21372	291	3275	444	7144	1638	640	13432	7940	5483
8	Wheat (M) (R)	12750	442	13192	2015	2331	222	4066	1365	500	10499	2693	2251
9	Wheat (M) (IR)	18000	624	18624	2015	3983	222	4598	1365	609	12792	5832	5208
10	Jute (R)	13685	7548	21233	254	1680	222	6840	1638	532	11166	10067	2519
11	Sugarcane (R)	42745		42745	4750	4159	444	9234	1638	1011	21236	21509	21509
12	Sugarcane (IR)	51500		51500	4750	4882	444	10754	1638	1123	23591	27909	27909
13	Potato (L) (R)												
14	Potato (M) (R) (IR)												
15	Sweet Potato (R)	17100		17100	2850			5890	1170	496	10406	6695	6695
16	Keshari (R)	4340	308	4648	372			1786		108	2266	2382	2074
17	Lentil (R)												
18	Chickpea (R)												
19	Mungbean (R)	7830		7830	470			2318	546	167	3501	4329	4329
20	Mustard (R)	8330		8330	143	821	222	3116	975	264	5541	2789	2789
21	Groundnut (R)	15240		15240	1552			5700	1092	417	8761	6479	6479
22	Sesame (R)	6264		6264	104			2508	819	172	3603	2661	2661
23	Onion (R)												
24	Garlic (R)												
25	Chilli (R)	27840		27840	38	1015	222	6840	1638	488	10241	17599	17599
26	Tomato (R)												
27	Cabbage (IR)	27160		27160	52	2814	222	7030	1638	588	12344	14816	14816
28	Cauliflower (IR)												

Note : Excludes Irrigation Costs. (1) 5% all costs

Source : Consultants Estimates

(R) Rainfed. (L) Local

(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Economic Values by Planning Unit : SC9

Taka/hactare

Sl. No.	Name of Crop	Gross Income		Variable Costs				Seed	Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Manures and Fertiliser	Pesticides	Labour	Bullock Power			Total	Excl. By product
1	B. Aus (L) (R)	5050	1660	6710	929		4750	1365	379	7951	-1241	-2901
2	Aus (M) (IR) (R)	12360	1512	13872	2043	222	6460	1638	533	11187	2685	1173
3	B. Aman (L) (R)	6600	1992	8592			3876	1365	275	5780	2812	820
4	T. Aman (L) (R) (IR)	10450	3154	13604	390	222	4750	1365	350	7341	6263	3109
5	T. Aman (M) (R) (IR)	16430	1953	18383	1386	444	6080	1365	476	9988	8395	6442
6	Boro (L) (R) (IR)	6630	2158	8788	215	111	5624	1638	393	8245	543	-1615
7	Boro (M) (IR) (R)	12125	1575	13700	3275	444	6194	1638	592	12434	1266	-309
8	Wheat (M) (R)	12750	442	13192	2331	222	4066	1365	500	10499	2693	2251
9	Wheat (M) (IR)	18000	624	18624	3983	222	4598	1365	609	12792	5832	5208
10	Jute (R)	13685	7548	21233	1680	222	6840	1638	532	11166	10067	2519
11	Sugarcane (R)	42745		42745	4159	444	9234	1638	1011	21236	21509	21509
12	Sugarcane (IR)	51500		51500	4882	444	10754	1638	1123	23591	27909	27909
13	Potato (L) (R)											
14	Potato (M) (R) (IR)											
15	Sweet Potato (R)	17100		17100			5890	1170	496	10406	6695	6695
16	Khesari (R)	4340	308	4648			1786		108	2266	2382	2074
17	Lentil (R)											
18	Chickpea (R)											
19	Mungbean (R)	7830		7830			2318	546	167	3501	4329	4329
20	Mustard (R)											
21	Groundnut (R)	15240		15240			5700	1092	417	8761	6479	6479
22	Sesame (R)	6264		6264			2508	819	172	3603	2661	2661
23	Onion (R)											
24	Garlic (R)											
25	Chilli (R)	27840		27840	1015	222	6840	1638	488	10241	17599	17599
26	Tomato (R)											
27	Cabbage (IR)	27160		27160	2814	222	7030	1638	588	12344	14816	14816
28	Cauliflower (IR)											

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Economic Values by Planning Unit : SC10

Sl. No.	Name of Crop	Gross Income		Variable Costs				Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power	Total	Excl. By product
1	B. Aus (L) (R)	5050	1660	6710	528	929		4750	1365	7951	-2901
2	Aus (M) (R)	12360	1512	13872	291	2043	222	6460	1638	11187	1173
3	B. Aman (L) (R)	6000	1992	7992	264			3876	1365	5780	220
4	T. Aman (L) (R) (IR)	9500	3154	12654	264	390	222	4750	1365	7341	2159
5	T. Aman (M) (R) (IR)	16430	1953	18383	237	1386	444	6080	1365	9988	6442
6	Boro (L) (R) (IR)	6630	2158	8788	264	215	111	5624	1638	8245	-1615
7	Boro (M) (R) (R)	13250	1575	14825	291	3275	444	6194	1638	12434	816
8	Wheat (M) (R)	12750	442	13192	2012	2331	222	4066	1365	10496	2254
9	Wheat (M) (IR)	18000	624	18624	2015	3983	222	4598	1365	12792	5208
10	Jute (R)	13685	7548	21233	254	1680	222	6840	1638	11166	2519
11	Sugarcane (R)	42745		42745	4750	4159	444	9234	1638	21236	21509
12	Sugarcane (IR)	51500		51500	4750	4882	444	10754	1638	23591	27909
13	Potato (L) (R)										
14	Potato (M) (R) (IR)	39000		39000	4875	4449	444	8778	1755	21316	17684
15	Sweet Potato (R)	17100		17100	2850			5890	1170	10406	6695
16	Keshari (R)	4340	308	4648	372			1786		2266	2074
17	Lentil (R)										
18	Chickpea (R)										
19	Mungbean (R)										
20	Mustard (R)	8330		8330	143	821	222	3116	975	5541	2789
21	Groundnut (R)	13800		13800	1552			5700	1092	8761	5039
22	Sesame (R)										
23	Onion (R)										
24	Garlic (R)										
25	Chilli (R)	27840		27840	38	1015	222	6840	1638	10241	17599
26	Tomato (R)										
27	Cabbage (IR)	27160		27160	52	2814	222	7030	1638	12344	14816
28	Cauliflower (IR)										

Note : Excludes Irrigation Costs. (1) 5% all costs

Source : Consultants Estimates

(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Economic Values by Planning Unit : SC11

Sl. No.	Name of Crop	Gross Income		Variable Costs				Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manure and Fertiliser	Pesticides	Labour	Bullock Power	Total	By product
1	B. Aus (L) (R)	5808	1909	7717	528	929		4940	1365	8150	-2342
2	Aus (M) (R)	14935	1827	16762	291	2043	222	6840	1638	11586	3349
3	B. Aman (L) (R)	6000	1992	7992	264			3876	1365	5780	220
4	T. Aman (L) (R) (IR)	9500	3154	12654	264	390	222	4750	1365	7341	2159
5	T. Aman (M) (R) (IR)	16430	1953	18383	237	1386	444	6080	1365	9988	6442
6	Boro (L) (R) (IR)	10200	3320	13520	264	215	111	6346	1638	9003	1197
7	Boro (M) (R) (R)	20670	2457	23127	291	3275	444	7144	1638	13432	7238
8	Wheat (M) (R)	12750	442	13192	2015	2331	222	4066	1365	10499	2251
9	Wheat (M) (IR)	18000	624	18624	2015	3983	222	4598	1365	12792	5208
10	Jute (R)	13685	7548	21233	254	1680	222	6840	1638	11166	2519
11	Sugarcane (R)	42745		42745	4750	4159	444	9234	1638	21236	21509
12	Sugarcane (IR)	51500		51500	4750	4882	444	10754	1638	23591	27909
13	Potato (L) (R)										
14	Potato (M) (R) (IR)										
15	Sweet Potato (R)	17100		17100	2850			5890	1170	10406	6695
16	Khesari (R)	4340	308	4648	372			1786		2266	2074
17	Lentil (R)										
18	Chickpea (R)										
19	Mungbean (R)										
20	Mustard (R)	8330		8330	143	821	222	3116	975	5541	2789
21	Groundnut (R)										
22	Sesame (R)										
23	Onion (R)										
24	Garlic (R)										
25	Chilli (R)	27840		27840	38	1015	222	6840	1638	10241	17599
26	Tomato (R)										
27	Cabbage (IR)	27160		27160	52	2814	222	7030	1638	12344	14816
28	Cauliflower (IR)										

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Economic Values by Planning Unit : SC12

Sl. No.	Name of Crop	Gross Income		Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour			Total	Excl. By product
1	B. Aus (L) (R)	5050	1660	6710	528	929		3750	329	6901	-191	-1851
2	Aus (M) (IR) (R)	12360	1512	13872	291	2043	222	5100	485	9759	4113	2801
3	B. Aman (L) (R)	6600	1992	8592	264			3060	234	4923	3669	1677
4	T. Aman (L) (R) (IR)	10450	3154	13604	264	390	222	3750	300	6291	7313	4159
5	T. Aman (M) (R) (IR)	16430	1953	18383	237	1386	444	4800	412	8644	9739	7786
6	Boro (L) (R) (IR)	6630	2158	8788	284	215	111	4440	334	7022	1766	-392
7	Boro (M) (IR) (R)	12125	1575	13700	291	3275	444	4890	527	11065	2635	1060
8	Wheat (M) (R)	12750	442	13192	2015	2331	222	3210	457	9600	3592	3150
9	Wheat (M) (IR)	18000	624	18624	2015	3983	222	3630	561	11776	6848	6224
10	Jute (R)	13685	7548	21233	254	1680	222	5400	460	9654	11579	4031
11	Sugarcane (R)	42745		42745	4750	4159	444	7290	914	19195	23550	23550
12	Sugarcane (IR)	51500		51500	4750	4882	444	8490	1010	21214	30286	30286
13	Potato (L) (R)											
14	Potato (M) (R) (IR)											
15	Sweet Potato (R)	17100		17100	2850			4650	434	9104	7997	7997
16	Keshari (R)	4340	308	4648	372			1410	89	1871	2777	2469
17	Lentil (R)											
18	Chickpea (R)											
19	Mungbean (R)											
20	Mustard (R)											
21	Groundnut (R)											
22	Sesame (R)											
23	Onion (R)											
24	Garlic (R)											
25	Chilli (R)	27840		27840	38	1015	222	5400	416	8729	19111	19111
26	Tomato (R)											
27	Cabbage (IR)	27160		27160	52	2814	222	5550	514	10790	16370	16370
28	Cauliflower (IR)											

Note : Excludes Irrigation Costs. (1) 5% all costs

Source : Consultants Estimates

(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Economic Values by Planning Unit : SC12

Taka/hactare

Sl. No.	Name of Crop	Gross Income			Variable Costs					Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power			Total	Excl. By product
1	B. Aus (L) (R)	5050	1660	6710	528	929		3750	1365	329	6901	-191	-1851
2	Aus (M) (IR) (R)	12360	1512	13872	291	2043	222	5100	1638	465	9759	4113	2601
3	B. Aman (L) (R)	6600	1992	8592	264			3060	1365	234	4923	3669	1677
4	T. Aman (L) (R) (IR)	10450	3154	13604	264	390	222	3750	1365	300	6291	7313	4159
5	T. Aman (M) (R) (IR)	16430	1953	18383	237	1386	444	4800	1365	412	8644	9739	7786
6	Boro (L) (R) (IR)	6630	2158	8788	284	215	111	4440	1638	334	7022	1766	-392
7	Boro (M) (IR) (R)	12125	1575	13700	291	3275	444	4890	1638	527	11065	2635	1060
8	Wheat (M) (R)	12750	442	13192	2015	2331	222	3210	1365	457	9600	3592	3150
9	Wheat (M) (IR)	18000	624	18624	2015	3983	222	3630	1365	561	11776	6848	6224
10	Jute (R)	13685	7548	21233	254	1680	222	5400	1638	460	9654	11579	4031
11	Sugarcane (R)	42745		42745	4750	4159	444	7290	1638	914	19195	23550	23550
12	Sugarcane (IR)	51500		51500	4750	4882	444	8490	1638	1010	21214	30286	30286
13	Potato (L) (R)												
14	Potato (M) (R) (IR)												
15	Sweet Potato (R)	17100		17100	2850			4650	1170	434	9104	7997	7997
16	Khesari (R)	4340	308	4648	372			1410		89	1871	2777	2469
17	Lentil (R)												
18	Chickpea (R)												
19	Mungbean (R)												
20	Mustard (R)	8330		8330	143	821	222	2460	975	231	4852	3478	3478
21	Groundnut (R)												
22	Sesame (R)												
23	Onion (R)												
24	Garlic (R)												
25	Chilli (R)	27840		27840	38	1015	222	5400	1638	416	8729	19111	19111
26	Tomato (R)												
27	Cabbage (IR)	27160		27160	52	2814	222	5550	1638	514	10790	16370	16370
28	Cauliflower (IR)												

Note : Excludes Irrigation Costs. (1) 5% all costs
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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Crop Budgets at 1991 Economic Values by Planning Unit : SC13

Taka/hactare

Sl. No.	Name of Crop	Gross Income		Variable Costs				Misc Costs (1)	Total variable cost	Gross Margin	
		Crop	By Product	Total	Seed	Manures and Fertiliser	Pesticides	Labour	Bullock Power	Total	Excl. By product
1	B. Aus (L) (R)	5050	1660	6710	528	929		4750	1365	7951	-1241
2	Aus (M) (IR) (R)	12360	1512	13872	291	2043	222	6460	1638	11187	2685
3	B. Aman (L) (R)	6600	1992	8592	264			3876	1365	5780	2812
4	T. Aman (L) (R) (IR)	10450	3154	13604	264	390	222	4750	1365	7341	6263
5	T. Aman (M) (R) (IR)	16430	1953	18383	237	1386	444	6080	1365	9988	8395
6	Boro (L) (R) (IR)	6630	2158	8788	264	215	111	5624	1638	8245	543
7	Boro (M) (IR) (R)	12125	1575	13700	291	3275	444	6194	1638	12434	1266
8	Wheat (M) (R)										
9	Wheat (M) (IR)	18000	624	18624	2015	3983	222	4598	1365	12792	5832
10	Jute (R)	13685	7548	21233	254	1680	222	6840	1638	11166	10067
11	Sugarcane (R)	42745		42745	4750	4159	444	9234	1638	21236	21509
12	Sugarcane (IR)	51500		51500	4750	4882	444	10754	1638	23591	27909
13	Potato (L) (R)										
14	Potato (M) (R) (IR)	46200		46200	4875	4449	444	8778	1755	21316	24884
15	Sweet Potato (R)	17100		17100	2850			5890	1170	10406	6695
16	Khesari (R)	4340	308	4648	372			1786		2266	2382
17	Lentil (R)										
18	Chickpea (R)										
19	Mungbean (R)	7830		7830	470			2318	546	3501	4329
20	Mustard (R)	8330		8330	143	821	222	3116	975	5541	2789
21	Groundnut (R)	15240		15240	1552			5700	1092	8761	6479
22	Sesame (R)										
23	Onion (R)										
24	Garlic (R)										
25	Chilli (R)	27840		27840	38	1015	222	6840	1638	10241	17599
26	Tomato (R)										
27	Cabbage (IR)										
28	Cauliflower (IR)										

Note : Excludes Irrigation Costs. (1) 5% all costs.
Source : Consultants Estimates
(R) Rainfed. (L) Local
(IR) Irrigated. (M) Modern

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APPENDIX G

Total Crop Gross Margins for each SWA Planning Unit

The set of tables in this appendix give the total rainfed and irrigated crop gross margins at 1991 economic values by flood class for each of the 27 Study Planning Units. These data were used in the RAOM based regional study analyses.

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Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

CROP GROSS MARGINS BY PLANNING UNIT (1991 Economic Values)

(Crop Areas File : SWSCAR-3.wk1)

Taka

SW1	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aue	0	0	0	0	43,999,045	34,398,699	16,459,504	0	0	94,857,249	94,857,249
M Aue	35,330,872	65,302,009	0	0	0	0	0	0	100,632,881	0	100,632,881
B Aman	0	0	0	0	0	292,553	46,004,213	4,923,673	0	51,220,439	51,220,439
L T Aman	1,156,776	113,382,040	1,768,550	0	65,627	479,927	0	0	116,307,366	545,554	116,852,920
M Aman	150,656,969	88,202,501	0	0	53,445,975	13,423,449	0	0	238,859,470	66,869,424	305,728,895
Jute	0	0	0	0	74,064,067	76,159,262	585,777	0	0	150,809,105	150,809,105
Sugarcane	77,984,769	30,544,133	0	0	23,272,707	29,582,530	0	0	108,528,902	52,855,236	161,384,139
Rabi											
L Boro	0	0	0	3,259,630	0	0	0	7,882,393	3,259,630	7,882,393	11,142,023
M Boro	29,257,446	88,748,929	12,436,560	52,208	15,908,846	0	0	0	130,495,143	15,908,846	146,403,989
M Wheat	56,903,370	65,607,538	11,465,907	0	1,776,444	14,591,933	0	1,170,963	133,976,815	17,539,339	151,516,154
Potato	0	3,521,297	720,183	0	8,150,739	0	3,482,507	881,384	4,241,480	12,514,630	16,756,110
Pulses	8,328,208	1,610,832	724,060	19,059	24,324,694	41,157,248	17,489,784	2,073,110	10,682,160	85,044,836	95,726,996
Oilseeds	3,821,316	8,382,094	0	15,193	10,663,053	3,855,358	5,299,197	1,686,563	12,218,603	21,504,170	33,722,774
Spices	16,827,266	2,094,636	0	0	19,932,227	42,758,004	0	0	18,921,902	62,690,231	81,612,133
Minor crops	24,088,597	2,975,527	0	0	0	84,604,843	0	0	27,064,123	84,604,843	111,668,966
Orchards	13,555,003	0	0	0	15,664,257	0	0	0	13,555,003	15,664,257	29,219,260
Totals	417,910,592	470,371,536	27,115,260	3,346,090	291,267,681	341,303,804	89,320,982	18,618,085	918,743,478	740,510,553	1,659,254,031
Total NCA	16,882	25,237	2,567	398	44,924	32,835	21,772	2,797	45,083	102,328	147,411
Tk/ha(NCA)	24,755	18,638	10,564	8,415	6,484	10,394	4,103	6,657	20,379	7,237	11,256

SW2	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	3,719,145	6,785,432	3,889,779	0	0	14,394,355	14,394,355
M Aus	53,025,519	137,425,160	0	0	37,661	217,231	0	0	190,450,679	254,892	190,705,571
B Aman	0	0	0	0	0	2,560,551	7,959,737	2,588,191	0	13,108,479	13,108,479
L T Aman	49,542,320	247,671,526	4,546,637	0	527,102	3,550,101	4,643	0	301,760,482	4,081,846	305,842,328
M Aman	539,495,499	207,422,753	0	0	13,715,395	14,784,506	0	0	746,918,252	28,499,900	775,418,152
Jute	0	0	0	0	12,400,595	24,262,009	3,903,738	0	0	40,566,342	40,566,342
Sugarcane	257,930,024	36,670,744	0	0	22,016,214	6,722,162	0	0	294,600,768	28,738,376	323,339,144
Rabi											
L Boro	0	0	0	3,790,236	0	0	0	80,433	3,790,236	80,433	3,870,669
M Boro	541,597,137	380,140,180	47,956,180	2,229,298	38,234	0	0	0	971,922,794	38,234	971,961,028
M Wheat	56,857,315	54,431,391	14,242,297	0	52,844	3,216,503	146,252	6,015	125,531,004	3,421,613	128,952,617
Potato	0	359,106	15,828	0	4,439,201	5,921	6,983	1,767	374,934	4,453,872	4,828,806
Pulses	159,385	52,029,523	15,407	226	1,586,998	11,321,694	4,969,258	563,061	52,204,541	18,441,011	70,645,552
Oilseeds	5,648,843	24,091,202	4,715	156	933,568	873,525	1,632,410	68,338	29,744,917	3,507,841	33,252,757
Spices	76,971,934	53,153,310	0	0	354,201	963,378	178,946	0	130,125,244	1,496,524	131,621,769
Minor crops	72,786,700	145,159,755	82,654	0	168,185	3,336,527	92,419	0	218,029,110	3,597,130	221,626,240
Orchards	240,566	0	0	0	5,754,647	0	0	0	240,566	5,754,647	5,995,212
Totals	1,654,255,242	1,338,554,650	66,863,719	6,019,915	65,743,988	78,599,539	22,784,163	3,307,806	3,065,693,526	170,435,495	3,236,129,021
Total NCA	63,375	59,343	5,799	640	6,155	9,122	6,130	1,111	129,156	22,519	151,675
Tk/ha(NCA)	26,103	22,556	11,530	9,412	10,681	8,616	3,717	2,978	23,736	7,569	21,336

Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

CROP GROSS MARGINS BY PLANNING UNIT (1991 Economic Values)

(Crop Areas File : SWSCAR-3.wk1)

Taka

SW3	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	(7,446,611)	(10,865,090)	(1,966,172)	0	0	(20,277,873)	(20,277,873)
M Aus	12,151,372	40,780,068	0	0	2,258,112	12,229,430	0	0	52,931,439	14,487,542	67,418,982
B Aman	0	0	0	0	0	22,849,212	78,596,305	25,856,973	0	127,302,489	127,302,489
L T Aman	1,144,533	35,891,404	1,950,407	0	1,166,037	8,269,721	0	0	38,986,344	9,435,758	48,422,102
M Aman	31,740,181	40,875,282	0	0	28,387,924	29,207,231	0	0	72,615,463	57,595,155	130,210,618
Jute	0	0	0	0	27,085,715	54,238,707	22,661,637	0	0	103,986,060	103,986,060
Sugarcane	1,903,997	105,110	0	0	73,838,657	33,423,490	0	0	2,009,106	107,262,146	109,271,253
Rabi											
L Boro	0	0	0	3,435,232	0	0	0	2,723,526	3,435,232	2,723,526	6,158,758
M Boro	28,039,262	109,563,570	52,474,889	752,991	0	0	0	0	190,830,712	0	190,830,712
M Wheat	9,273,654	27,892,646	5,980,054	0	2,489,864	14,868,723	7,318,223	0	43,146,354	24,676,810	67,823,164
Potato	99,397	1,948,766	0	0	3,322,092	343,813	310,978	0	2,048,163	3,976,883	6,025,046
Pulses	479,709	2,302,678	175,642	0	15,506,156	63,711,382	25,150,398	2,019,014	2,958,029	106,386,950	109,344,979
Oilseeds	276,745	1,551,848	129,499	8,497	5,007,335	20,969,610	9,232,749	562,867	1,966,589	35,772,561	37,739,151
Spices	2,885,561	7,292,549	0	0	17,636,799	46,740,974	10,368,048	0	10,178,110	74,745,821	84,923,931
Minor crops	1,221,134	12,063,360	545,564	0	6,934,040	27,517,421	4,089,335	0	13,830,058	38,540,797	52,370,854
Orchards	0	0	0	0	20,600,646	0	0	0	0	20,600,646	20,600,646
Totals	89,215,545	280,267,280	61,256,054	4,196,719	196,786,766	323,504,624	155,761,502	31,162,380	434,935,599	707,215,272	1,142,150,870
Total NCA	3,426	12,574	4,093	713	23,521	45,728	28,287	7,716	20,807	105,252	126,059
Tk/ha(NCA)	26,042	22,289	14,965	5,883	8,367	7,075	5,506	4,038	20,904	6,719	9,060

SW4	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	5,712,883	3,210,301	796,542	0	0	9,719,726	9,719,726
M Aus	22,457,976	30,663,057	0	0	2,120,731	0	0	0	53,121,033	2,120,731	55,241,764
B Aman	0	0	0	0	0	16,256,806	38,661,137	12,632,237	0	67,550,180	67,550,180
L T Aman	31,871,312	80,616,135	2,710,410	0	57,773,313	76,458,095	3,286,738	0	115,197,857	137,518,146	252,716,003
M Aman	133,707,524	78,703,174	0	0	107,223,430	21,805,376	0	0	212,410,697	129,028,806	341,439,503
Jute	0	0	0	0	90,410,469	74,787,350	12,032,179	0	0	177,229,998	177,229,998
Sugarcane	39,850,680	9,217,883	0	0	62,712,023	8,947,898	0	0	49,068,563	71,659,921	120,728,484
Rabi											
L Boro	0	0	0	4,164,649	0	0	0	1,829,060	4,164,649	1,829,060	5,993,708
M Boro	90,634,974	105,122,758	25,794,705	2,419,856	236,257	0	0	0	223,972,293	236,257	224,208,550
M Wheat	33,086,742	40,376,164	4,064,400	0	2,112,450	6,375,458	11,743,472	3,674,113	77,527,305	23,905,493	101,432,798
Potato	1,707,377	7,591,397	713,237	0	7,216,086	4,425,393	68,474	17,330	10,012,010	11,727,283	21,739,293
Pulses	5,971,793	4,701,413	2,309,780	418	63,742,981	30,539,634	16,344,517	2,361,640	12,983,405	112,988,771	125,972,176
Oilseeds	2,995,186	4,428,266	939,040	383	21,481,824	24,643,595	7,836,382	608,857	8,362,876	54,570,658	62,933,533
Spices	7,984,921	7,546,952	0	0	9,971,915	6,933,391	0	0	15,531,873	16,905,306	32,437,179
Minor crops	25,340,393	45,641,124	1,488,164	0	12,240,263	19,203,165	0	0	72,469,681	31,443,428	103,913,109
Orchards	414,919	0	0	0	41,996,746	0	0	0	414,919	41,996,746	42,411,665
Totals	396,023,795	414,608,323	38,019,737	6,585,306	484,951,371	293,586,462	90,769,441	21,123,237	855,237,161	890,430,510	1,745,667,670
Total NCA	18,531	20,783	3,708	831	55,020	34,309	16,266	4,942	43,852	110,537	154,390
Tk/ha(NCA)	21,371	19,949	10,254	7,927	8,814	8,557	5,580	4,274	19,503	8,055	11,307

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Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

CROP GROSS MARGINS BY PLANNING UNIT (1991 Economic Values)

(Crop Areas File : SWSCAR-3.wk1)

Taka

SW5	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	4,935,990	6,365,430	1,244,027	0	0	12,545,446	12,545,446
M Aus	4,280,631	10,990,141	0	0	642,826	3,380,514	0	0	15,270,771	4,023,340	19,294,111
B Aman	0	0	0	0	0	9,863,880	34,610,347	11,438,624	0	55,912,851	55,912,851
L T Aman	2,136,730	21,306,968	1,100,097	0	4,382,970	12,287,853	1,491,769	0	24,543,795	18,162,592	42,706,387
M Aman	17,118,167	17,019,746	0	0	17,892,098	13,609,915	0	0	34,137,912	31,502,013	65,639,925
Jute	0	0	0	0	14,655,638	24,209,815	9,588,066	0	0	48,453,519	48,453,519
Sugarcane	2,789,428	553,565	0	0	31,159,690	12,811,272	0	0	3,342,992	43,970,962	47,313,954
Rabi											
L Boro	0	0	0	2,394,888	0	0	0	2,028,164	2,394,888	2,028,164	4,423,052
M Boro	11,405,910	29,019,211	12,600,679	1,307,553	0	0	0	0	54,333,353	0	54,333,353
M Wheat	4,581,776	10,321,258	2,166,701	0	989,176	5,714,692	3,055,092	163,997	17,069,735	9,922,957	26,992,692
Potato	87,753	955,492	71,421	0	1,743,942	162,391	1,436,024	0	1,114,666	3,342,357	4,457,023
Pulses	266,577	746,301	60,589	0	7,418,564	20,882,221	9,069,910	900,754	1,073,467	38,271,449	39,344,916
Oilseeds	273,636	784,213	130,005	0	2,800,954	8,884,662	4,537,419	446,264	1,187,853	16,669,299	17,857,153
Spices	1,062,644	1,514,046	0	0	5,102,363	13,418,218	2,585,792	0	2,576,690	21,106,373	23,683,063
Minor crops	1,595,145	7,021,429	343,587	0	2,545,482	9,101,674	1,447,461	0	8,960,160	13,094,617	22,054,778
Orchards	0	0	0	0	8,565,913	0	0	0	0	8,565,913	8,565,913
Totals	45,598,396	100,232,368	16,473,079	3,702,441	102,835,606	140,692,537	69,065,907	14,977,803	166,006,284	327,571,853	493,578,138
Total NCA	2,045	5,009	1,504	436	11,864	19,437	13,009	3,600	8,993	47,910	56,903
Tk/ha(NCA)	22,299	20,012	10,954	8,491	8,668	7,238	5,309	4,161	18,459	6,837	8,674

SW6	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	(1,938,719)	(2,760,371)	(483,032)	0	0	(5,182,123)	(5,182,123)
M Aus	3,185,941	10,490,065	0	0	578,195	3,239,079	0	0	13,676,006	3,817,274	17,493,280
B Aman	0	0	0	0	0	5,949,234	20,245,416	7,784,292	0	33,978,942	33,978,942
L T Aman	294,626	9,338,571	473,823	0	287,185	2,208,568	0	0	10,107,020	2,495,753	12,602,773
M Aman	8,135,370	10,775,991	0	0	7,427,942	7,853,192	0	0	18,911,361	15,281,135	34,192,496
Jute	0	0	0	0	7,049,902	13,801,467	5,862,428	0	0	26,713,798	26,713,798
Sugarcane	250,694	6,940	0	0	18,666,087	8,305,259	0	0	257,635	26,971,346	27,228,981
Rabi											
L Boro	0	0	0	879,571	0	0	0	566,408	879,571	566,408	1,445,978
M Boro	7,039,205	28,479,866	12,332,599	998,585	0	0	0	0	48,850,256	0	48,850,256
M Wheat	2,477,305	7,521,952	1,611,054	0	654,373	3,835,708	1,753,158	160,216	11,610,310	6,403,455	18,013,765
Potato	0	632,636	0	0	506,854	20,478	35,109	0	632,636	562,442	1,195,078
Pulses	90,877	353,303	0	0	3,012,470	12,019,865	4,683,148	518,111	444,180	20,233,594	20,677,775
Oilseeds	65,003	376,248	0	0	1,281,586	5,250,357	2,332,308	280,056	441,251	9,144,306	9,585,558
Spices	452,266	832,316	0	0	3,137,878	8,974,413	1,832,767	0	1,284,583	13,945,057	15,229,640
Minor crops	354,782	3,833,411	177,109	0	985,592	3,818,114	593,217	0	4,365,302	5,396,923	9,762,224
Orchards	0	0	0	0	2,946,745	0	0	0	0	2,946,745	2,946,745
Totals	22,346,070	72,641,300	14,594,584	1,878,156	44,596,091	72,515,362	36,854,520	9,309,082	111,460,111	163,275,055	274,735,166
Total NCA	874	3,267	994	232	6,083	11,713	7,203	2,307	5,367	27,306	32,673
Tk/ha(NCA)	25,569	22,237	14,677	8,095	7,331	6,191	5,117	4,035	20,768	5,979	8,409

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Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

CROP GROSS MARGINS BY PLANNING UNIT (1991 Economic Values)

(Crop Areas File : SWSCAR-3.wk1)

Taka

SW7	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	(558,269)	(1,401,645)	(1,729,004)	0	0	(3,679,919)	(3,679,919)
M Aus	3,349,700	17,886,505	0	0	3,771,494	5,611,683	0	0	21,236,205	9,383,177	30,619,382
B Aman	0	0	0	0	0	8,049,100	138,729,540	122,508,507	0	269,287,148	269,287,148
L T Aman	278,810	24,160,295	7,375,796	0	912,530	1,026,576	0	0	31,814,901	1,939,105	33,754,006
M Aman	11,069,664	23,478,187	0	0	26,024,171	28,779,218	0	0	34,547,851	54,803,389	89,351,240
Jute	0	0	0	0	15,171,650	67,219,901	31,596,584	0	0	113,988,135	113,988,135
Sugarcane	1,225,103	0	0	0	61,296,244	34,860,785	0	0	1,225,103	96,157,029	97,382,132
Rabi											
L Boro	0	0	0	1,753,305	0	0	0	17,772,468	1,753,305	17,772,468	19,525,773
M Boro	12,798,435	98,238,195	246,963,314	101,018,940	0	0	0	0	459,018,884	0	459,018,884
M Wheat	1,055,090	3,217,603	688,831	0	1,528,495	18,766,734	7,501,115	16,786,375	4,961,524	44,582,718	49,544,243
Potato	850,498	241,511	0	0	2,205,977	3,248,091	4,426,852	0	1,092,009	9,880,920	10,972,929
Pulses	233,927	2,831,587	1,061,060	0	8,117,792	45,699,523	44,091,564	19,154,802	4,126,573	117,063,681	121,190,254
Oilseeds	754,560	5,586,686	1,147,379	75,282	5,981,451	17,044,053	26,898,832	16,520,080	7,563,906	66,444,415	74,008,321
Spices	3,091,110	19,276,110	0	0	23,600,458	33,508,396	16,156,659	0	22,367,220	73,265,513	95,632,732
Minor crops	128,219	1,449,066	67,612	0	4,094,724	21,468,273	4,651,243	0	1,644,897	30,214,240	31,859,137
Orchards	0	0	0	0	9,946,679	0	0	0	0	9,946,679	9,946,679
Totals	34,835,115	196,365,746	257,303,991	102,847,526	162,093,396	283,880,687	272,332,384	192,742,232	591,352,378	911,048,698	1,502,401,077
Total NCA	1,053	7,181	13,374	5,862	14,514	33,765	38,442	34,362	27,470	121,083	148,553
Tk/ha(NCA)	33,083	27,346	19,239	17,545	11,168	8,408	7,084	5,609	21,527	7,524	10,114

SW8	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	23,091,511	7,520,550	1,859,237	0	0	32,471,298	32,471,298
M Aus	29,722,084	31,886,523	0	0	2,415,884	0	0	0	61,608,607	2,415,884	64,024,491
B Aman	0	0	0	0	0	3,803,573	22,277,087	7,556,692	0	33,637,353	33,637,353
L T Aman	32,739,387	142,742,995	6,312,359	0	78,426,706	93,750,802	1,019,886	0	181,794,740	173,197,393	354,992,133
M Aman	245,267,160	142,939,884	0	0	72,061,343	31,437,819	0	0	388,207,044	103,499,162	491,706,206
Jute	0	0	0	0	86,004,236	39,015,976	3,759,826	0	0	128,780,038	128,780,038
Sugarcane	35,493,289	8,776,592	0	0	16,898,978	2,603,026	0	0	44,269,881	19,502,004	63,771,885
Rabi											
L Boro	0	0	0	0	0	0	295,979	2,111,420	0	2,407,399	2,407,399
M Boro	176,871,330	262,056,671	85,350,860	6,467,220	41,454	0	0	0	530,746,081	41,454	530,787,536
M Wheat	40,360,193	36,929,819	5,941,218	0	4,223,925	6,778,099	2,591,941	535,466	83,231,229	14,129,431	97,360,660
Potato	7,111,771	16,358,074	1,660,721	0	431,278	2,364,597	9,976	2,525	25,130,566	2,808,376	27,938,942
Pulses	7,862,445	6,582,550	5,269,087	97	50,844,346	12,285,734	6,131,326	825,548	19,714,178	70,086,954	89,801,132
Oilseeds	8,742,693	16,525,683	2,113,355	74	18,592,900	14,374,278	3,679,828	286,424	27,381,804	36,933,430	64,315,235
Spices	8,111,436	7,051,535	0	0	9,254,801	4,161,479	0	0	15,162,972	13,416,280	28,579,252
Minor crops	26,259,791	54,536,076	1,730,503	0	13,506,796	13,292,725	0	0	82,526,370	26,799,520	109,325,890
Orchards	94,825	0	0	0	23,905,547	0	0	0	94,825	23,905,547	24,000,373
Totals	618,636,403	726,386,400	108,378,103	6,467,391	399,699,705	231,388,659	41,625,086	11,318,075	1,459,868,297	684,031,525	2,143,899,822
Total NCA	25,839	32,103	8,051	1,225	38,728	21,684	7,275	2,141	67,219	69,829	137,047
Tk/ha(NCA)	23,942	22,626	13,461	5,279	10,321	10,671	5,722	5,285	21,718	9,796	15,644

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Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

CROP GROSS MARGINS BY PLANNING UNIT (1991 Economic Values)

(Crop Areas File : SWSCAR-3.wk1)

Taka

SW9	IRRIGATED				NON-IRRIGATED				Totals		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	7,687,863	3,276,671	2,371,694	0	0	13,336,228	13,336,228
M Aus	19,140,200	27,665,882	0	0	150,616	0	0	0	46,806,082	150,616	46,956,698
B Aman	0	0	0	0	0	383,373	24,821,634	12,066,892	0	37,271,899	37,271,899
L T Aman	11,933,464	71,788,922	5,276,347	0	81,023,626	59,029,468	3,722,064	0	88,998,733	143,775,158	232,773,891
M Aman	82,622,346	59,765,405	0	0	61,998,386	24,144,713	0	0	142,387,751	86,143,099	228,530,849
Jute	0	0	0	0	57,658,867	28,149,753	8,484,370	0	0	94,292,991	94,292,991
Sugarcane	1,470,082	427,689	0	0	9,642,465	368,865	0	0	1,897,771	10,011,330	11,909,101
Rabi											
L Boro	0	0	0	0	0	0	62,444	760,586	0	823,030	823,030
M Boro	60,937,700	114,134,346	68,318,458	9,404,192	0	0	0	0	252,794,695	0	252,794,695
M Wheat	20,474,177	23,404,887	6,596,777	0	1,637,481	2,339,278	1,185,768	192,033	50,475,842	5,354,560	55,830,402
Potato	2,465,478	7,902,649	939,500	0	425,156	949,083	1,678,773	0	11,307,627	3,053,012	14,360,639
Pulses	1,532,305	2,208,166	3,316,688	0	27,614,080	3,342,631	10,047,363	6,927,095	7,057,159	47,931,169	54,988,328
Oilseeds	6,055,855	8,558,040	1,824,468	0	10,945,933	1,541,831	4,816,259	844,926	16,438,363	18,148,948	34,587,311
Spices	1,088,193	327,492	0	0	14,426,084	4,622,741	1,741,960	0	1,415,686	20,790,785	22,206,470
Minor crops	9,605,909	26,136,261	1,455,250	0	8,940,000	8,703,048	279,795	0	37,197,419	17,922,844	55,120,263
Orchards	0	0	0	0	27,587,055	0	0	0	0	27,587,055	27,587,055
Totale	217,325,708	342,319,741	87,727,487	9,404,192	309,737,612	136,851,456	59,212,124	20,791,532	656,777,127	526,592,723	1,183,369,851
Total NCA	9,786	16,854	7,213	1,060	27,010	11,661	9,304	4,067	34,713	52,042	86,755
Tk/ha(NCA)	22,208	20,554	12,162	8,872	11,468	11,736	6,364	5,112	18,920	10,119	13,640

SW10	IRRIGATED				NON-IRRIGATED				Totals		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	4,689,246	4,526,738	4,683,120	0	0	13,899,103	13,899,103
M Aus	6,129,457	4,230,641	0	0	536,929	66,916	0	0	10,360,099	603,845	10,963,944
B Aman	0	0	0	0	0	6,383,419	74,920,174	18,935,628	0	100,239,221	100,239,221
L T Aman	4,289,224	11,348,750	2,099,519	0	27,023,853	70,229,048	21,125,001	0	17,737,494	118,377,902	136,115,396
M Aman	22,918,228	15,350,561	0	0	36,227,703	24,884,645	0	0	38,268,789	61,112,348	99,381,137
Jute	0	0	0	0	15,027,250	18,054,719	12,049,430	0	0	45,131,399	45,131,399
Sugarcane	4,373,268	1,840,993	0	0	14,531,670	6,692,625	0	0	6,214,261	21,224,295	27,438,556
Rabi											
L Boro	0	0	0	0	0	0	36,020	15,181,408	0	15,217,428	15,217,428
M Boro	11,914,842	17,639,272	27,743,224	11,160,906	0	0	0	0	68,458,244	0	68,458,244
M Wheat	7,617,310	5,248,939	2,211,696	0	518,906	996,805	541,709	102,855	15,077,944	2,160,274	17,238,218
Potato	735,996	752,313	506,855	0	8,349,558	218,638	32,681,085	0	1,995,164	41,249,281	43,244,445
Pulses	431,294	373,097	142,350	0	7,256,935	6,512,900	18,062,475	3,446,517	946,742	35,278,827	36,225,569
Oilseeds	1,265,190	2,866,496	1,219,522	0	8,370,592	11,817,856	23,140,829	4,766,943	5,351,208	48,096,220	53,447,428
Spices	978,994	1,528,826	0	0	2,222,815	3,718,992	67,011	0	2,507,820	6,008,818	8,516,638
Minor crops	1,945,535	9,918,091	981,606	0	4,480,918	12,687,974	5,497,541	0	12,845,232	22,666,433	35,511,665
Orchards	0	0	0	0	22,383,149	0	0	0	0	22,383,149	22,383,149
Totale	62,599,340	71,097,979	34,904,773	11,160,906	151,619,525	166,791,274	192,804,395	42,433,351	179,762,997	553,648,545	733,411,542
Total NCA	2,709	3,160	2,870	1,946	13,286	16,233	33,732	8,371	10,685	71,621	82,306
Tk/ha(NCA)	23,109	22,501	12,161	5,736	11,412	10,275	5,716	5,069	18,824	7,730	8,911

Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

CROP GROSS MARGINS BY PLANNING UNIT (1991 Economic Values)

(Crop Areas File : SWSCAR-3.wk1)

Taka

SW11	IRRIGATED				NON-IRRIGATED				Totals		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	951,538	3,921,007	99,039	0	0	4,971,585	4,971,585
M Aus	3,225,927	25,856,122	0	0	0	0	0	0	29,082,049	0	29,082,049
B Aman	0	0	0	0	0	0	9,060,090	282,336	0	9,342,426	9,342,426
L T Aman	2,356,987	90,966,369	479,762	0	83,627,784	719,119,968	4,963,424	0	93,803,118	807,711,176	901,514,294
M Aman	25,144,578	127,209,987	0	0	54,360,285	195,481,974	0	0	152,354,566	249,842,259	402,196,825
Jute	0	0	0	0	8,713,680	68,378,362	1,660,259	0	0	78,752,300	78,752,300
Sugarcane	824,803	0	0	0	6,781,367	0	0	0	824,803	6,781,367	7,606,169
Rabi											
L Boro	0	0	0	4,528,908	0	0	3,353,157	0	4,528,908	3,353,157	7,882,066
M Boro	21,209,942	259,250,104	9,050,556	1,008,671	0	0	0	0	290,519,272	0	290,519,272
M Wheat	3,339,070	19,608,296	234,223	0	73,592	103,492	2,226	3,016	23,181,589	182,326	23,363,916
Potato	151,352	3,415,417	98,176	0	0	17,534,036	0	0	3,664,945	17,534,036	21,198,981
Pulses	4,181	6,586	122,383	0	7,220,422	43,738,301	1,074,697	133,490	133,150	52,166,911	52,300,061
Oilseeds	437,653	671,472	121,046	0	8,833,350	66,480,572	1,616,928	140,304	1,230,170	77,071,155	78,301,325
Spices	468,304	0	0	0	7,877,165	38,979,598	5,218	0	468,304	48,861,981	47,330,284
Minor crops	691,273	1,076,151	44,788	0	3,541,179	52,647,559	0	0	1,812,212	56,188,738	58,000,950
Orchards	0	0	0	0	30,309,902	0	0	0	0	30,309,902	30,309,902
Totals	57,854,070	528,060,505	10,150,933	5,537,579	212,290,265	1,206,384,869	21,835,038	559,147	601,603,087	1,441,069,318	2,042,672,405
Total NCA	2,332	24,175	754	970	28,766	146,744	7,100	316	28,231	182,926	211,157
Tk/ha(NCA)	24,807	21,843	13,467	5,711	7,380	8,221	3,075	1,770	21,310	7,878	9,674

SW12	IRRIGATED				NON-IRRIGATED				Totals		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	756,766	934,637	400,590	0	0	2,091,993	2,091,993
M Aus	1,784,409	4,311,075	0	0	0	0	0	0	6,095,484	0	6,095,484
B Aman	0	0	0	0	0	23,942	4,156,539	1,554,901	0	5,735,382	5,735,382
L T Aman	1,058,588	9,541,887	380,800	0	17,732,235	105,864,211	1,200,525	0	10,981,275	124,796,971	135,778,246
M Aman	5,672,969	13,377,022	0	0	13,020,875	29,990,236	0	0	19,049,991	43,011,111	62,061,102
Jute	0	0	0	0	4,239,244	12,740,116	1,626,477	0	0	18,605,837	18,605,837
Sugarcane	73,939	8,701	0	0	1,877,491	30,610	0	0	82,641	1,908,101	1,990,742
Rabi											
L Boro	0	0	0	379,478	0	0	471,270	53,186	379,478	524,456	903,934
M Boro	3,739,769	22,955,218	6,087,566	991,117	0	0	0	0	33,773,670	0	33,773,670
M Wheat	1,284,832	2,920,174	584,147	0	0	0	145,363	16,329	4,789,153	161,692	4,950,845
Potato	213,348	1,307,079	128,718	0	53,025	4,327,767	209,376	0	1,649,144	4,590,168	6,239,313
Pulses	158,538	249,725	222,826	0	1,921,035	7,099,447	1,585,426	1,009,207	631,090	11,615,116	12,246,206
Oilseeds	452,626	491,913	158,773	0	2,837,587	13,322,600	1,488,765	209,756	1,103,312	17,858,708	18,962,021
Spices	141,429	8,354	0	0	2,184,917	5,143,439	290,341	0	149,783	7,618,696	7,768,479
Minor crops	1,180,776	3,639,698	243,871	0	1,240,148	13,708,634	34,896	0	5,064,345	14,983,678	20,048,022
Orchards	0	0	0	0	10,326,990	0	0	0	0	10,326,990	10,326,990
Totals	15,761,223	58,810,846	7,806,702	1,370,594	56,190,313	193,185,639	11,609,568	2,843,379	83,749,366	263,828,899	347,578,265
Total NCA	626	2,603	598	162	5,861	21,706	2,445	659	3,989	30,671	34,659
Tk/ha(NCA)	25,197	22,592	13,049	8,469	9,588	8,900	4,748	4,317	20,996	8,602	10,028

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Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

CROP GROSS MARGINS BY PLANNING UNIT (1991 Economic Values)

(Crop Areas File : SWSCAR-3.wk1)

Taka

SW13	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	850,099	3,095,824	2,015,338	0	0	5,961,262	5,961,262
M Aus	2,759,153	3,088,767	0	0	646,805	1,010,269	0	0	5,847,920	1,657,074	7,504,994
B Aman	0	0	0	0	0	16,638,215	68,731,684	46,508,920	0	131,878,819	131,878,819
L T Aman	1,376,232	10,967,871	2,354,946	0	21,461,542	231,010,358	12,373,500	406,478	14,699,050	265,251,878	279,950,928
M Aman	9,386,039	14,917,552	0	0	38,703,831	88,784,114	0	295,398	24,303,590	127,783,343	152,086,933
Jute	0	0	0	0	5,457,439	25,049,015	12,636,660	0	0	43,143,114	43,143,114
Sugarcane	994,753	932,641	0	0	19,720,150	18,959,989	0	0	1,927,393	38,680,139	40,607,532
Rabi											
L Boro	0	5,165	1,911,643	3,684,323	0	0	1,113	7,850,711	5,601,132	7,851,824	13,452,956
M Boro	4,097,211	18,042,694	25,657,535	13,497,583	0	0	0	0	61,295,022	0	61,295,022
M Wheat	2,856,880	2,842,513	951,974	0	348,615	6,761,123	131,598	5,418,847	6,651,366	12,660,183	19,311,549
Potato	280,449	878,594	287,915	0	5,505,039	13,420,465	9,479,094	0	1,446,958	28,404,599	29,851,557
Pulses	3,376	11,719	0	0	3,331,038	34,470,179	16,546,330	6,694,040	15,095	61,041,587	61,056,682
Oilseeds	614,215	2,037,678	581,159	0	5,068,231	36,312,013	21,459,704	8,615,482	3,233,052	71,455,431	74,688,483
Spices	227,589	859,864	0	0	4,006,808	14,574,104	1,708,018	0	1,087,454	20,288,930	21,376,384
Minor crops	556,880	7,649,619	503,426	0	2,184,248	11,860,938	2,797,978	0	8,709,925	16,843,165	25,553,090
Orchards	0	0	0	0	21,952,941	0	0	0	0	21,952,941	21,952,941
Totals	23,152,777	62,234,677	32,248,598	17,181,906	129,236,787	501,946,607	147,881,018	75,789,876	134,817,957	854,854,288	989,672,245
Total NCA	950	2,892	3,219	2,230	11,779	57,683	26,491	15,902	9,291	111,855	121,146
Tk/ha(NCA)	24,378	21,519	10,017	7,705	10,971	8,702	5,582	4,766	14,511	7,643	8,169

SW14	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	546,208	2,659,938	230,190	0	0	3,436,336	3,436,336
M Aus	264,298	1,828,388	0	0	0	0	0	0	2,092,686	0	2,092,686
B Aman	0	0	0	0	0	873,840	7,448,607	665,842	0	8,988,289	8,988,289
L T Aman	178,728	6,308,583	52,935	0	46,517,856	411,142,269	3,558,971	22,322	6,540,246	461,241,419	467,781,665
M Aman	1,581,683	8,993,269	0	0	30,967,380	113,057,487	0	18,644	10,574,952	144,043,511	154,618,464
Jute	0	0	0	0	3,782,644	38,396,275	1,310,893	0	0	43,489,812	43,489,812
Sugarcane	83,314	22,996	0	0	4,377,600	891,171	0	0	106,310	5,268,771	5,375,081
Rabi											
L Boro	0	0	55,879	433,907	0	0	1,859,331	370,218	489,786	2,229,549	2,719,335
M Boro	1,295,911	17,998,507	854,020	243,400	0	0	0	0	20,391,837	0	20,391,837
M Wheat	250,516	1,382,917	31,230	0	0	162,975	0	0	1,664,662	162,975	1,827,637
Potato	8,677	229,712	10,832	0	413,958	10,698,952	825,482	0	247,221	11,938,391	12,185,612
Pulses	0	0	0	0	2,716,611	19,720,873	1,030,269	145,490	0	23,613,243	23,613,243
Oilseeds	13,223	27,393	14,861	0	4,432,654	34,995,260	1,613,108	197,044	55,478	41,238,066	41,293,543
Spices	33,323	28,361	0	0	3,416,212	17,960,729	0	0	61,684	21,376,941	21,438,625
Minor crops	29,345	172,010	12,294	0	1,949,724	29,624,814	137,580	0	213,649	31,712,118	31,925,767
Orchards	0	0	0	0	18,227,748	0	0	0	0	18,227,748	18,227,748
Totals	3,737,020	36,992,136	1,032,051	677,306	117,348,595	680,184,584	18,014,431	1,419,559	42,438,512	816,967,169	859,405,681
Total NCA	151	1,692	83	105	16,091	84,601	5,293	459	2,031	106,445	108,476
Tk/ha(NCA)	24,706	21,866	12,410	6,449	7,293	8,040	3,403	3,090	20,893	7,675	7,923

Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

CROP GROSS MARGINS BY PLANNING UNIT (1991 Economic Values)

(Crop Areas File : SWSCAR-3.wk1)

Taka

SW Total	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	86,996,694	61,668,121	29,879,852	0	0	178,544,667	178,544,667
M Aus	196,807,539	412,404,403	0	0	13,159,253	25,755,122	0	0	609,211,942	38,914,375	648,126,317
B Aman	0	0	0	0	0	93,927,698	576,222,510	275,303,709	0	945,453,917	945,453,917
L T Aman	140,357,717	876,032,317	36,882,387	0	420,928,367	1,794,426,964	52,746,520	428,800	1,053,272,421	2,268,530,651	3,321,803,072
M Aman	1,284,516,375	849,031,314	0	0	561,456,739	637,243,874	0	314,042	2,133,547,689	1,199,014,655	3,332,562,344
Jute	0	0	0	0	421,721,397	564,462,726	127,758,325	0	0	1,113,942,448	1,113,942,448
Sugarcane	425,248,143	89,107,987	0	0	366,791,341	164,199,682	0	0	514,356,129	530,991,023	1,045,347,152
Rabi											
L Boro	0	5,165	1,967,523	28,704,126	0	0	6,079,314	59,209,980	30,676,814	65,289,295	95,966,109
M Boro	1,000,839,075	1,551,389,519	633,621,144	151,552,518	16,224,791	0	0	0	3,337,402,257	16,224,791	3,353,627,049
M Wheat	240,418,228	301,706,097	56,770,509	0	16,406,163	84,511,523	36,115,917	28,230,225	598,894,833	165,263,827	764,158,661
Potato	13,710,095	46,094,042	5,153,386	0	42,762,906	57,719,625	54,650,713	903,006	64,957,524	156,036,250	220,993,773
Pulses	25,522,616	74,007,481	13,419,872	19,799	224,614,122	352,501,633	176,276,465	46,771,880	112,969,769	800,164,100	913,133,868
Oilseeds	31,416,745	76,379,232	8,383,822	99,586	107,231,019	260,365,570	115,584,717	35,233,903	116,279,384	518,415,209	634,694,592
Spices	120,324,972	101,514,352	0	0	123,124,642	242,457,855	34,934,759	0	221,839,324	400,517,256	622,356,580
Minor crops	165,784,479	321,271,577	7,676,427	0	62,811,297	311,575,709	19,621,467	0	494,732,483	394,008,473	888,740,956
Orchards	14,305,312	0	0	0	260,168,967	0	0	0	14,305,312	260,168,967	274,474,279
Totals	3,659,251,296	4,698,943,486	763,875,070	180,376,028	2,724,397,699	4,650,816,101	1,229,870,558	446,395,545	9,302,445,881	9,051,479,903	18,353,925,784
Total NCA	148,577	216,672	54,829	16,809	303,602	547,221	222,750	88,750	436,887	1,162,323	1,599,210
Tk/ha(NCA)	24,629	21,687	13,932	10,731	8,974	8,499	5,521	5,030	21,293	7,787	11,477

SW Avg	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	6,214,050	4,404,866	2,134,275	0	0	12,753,190	12,753,190
M Aus	14,057,681	29,457,457	0	0	939,947	1,839,652	0	0	43,515,139	2,779,598	46,294,737
B Aman	0	0	0	0	0	6,709,121	41,158,751	19,664,551	0	67,532,423	67,532,423
L T Aman	10,025,551	62,573,737	2,634,456	0	30,066,312	128,173,355	3,767,609	30,629	75,233,744	162,037,904	237,271,648
M Aman	91,751,170	60,645,094	0	0	40,104,053	45,517,420	0	22,432	152,396,263	85,643,904	238,040,167
Jute	0	0	0	0	30,122,957	40,318,766	9,125,595	0	0	79,567,318	79,567,318
Sugarcane	30,374,867	6,364,856	0	0	26,199,382	11,728,549	0	0	36,739,724	37,927,930	74,667,654
Rabi											
L Boro	0	369	140,537	2,050,295	0	0	434,237	4,229,284	2,191,201	4,663,521	6,854,722
M Boro	71,488,505	110,813,537	45,258,653	10,825,180	1,158,914	0	0	0	238,385,876	1,158,914	239,544,789
M Wheat	17,172,731	21,550,435	4,055,036	0	1,171,869	6,036,537	2,579,708	2,016,445	42,778,202	11,804,559	54,582,761
Potato	979,293	3,292,432	368,099	0	3,054,493	4,122,830	3,903,622	64,500	4,639,823	11,145,446	15,785,270
Pulses	1,823,044	5,286,249	958,562	1,414	16,043,866	25,178,688	12,591,176	3,340,849	8,069,269	57,154,579	65,223,848
Oilseeds	2,244,053	5,455,659	598,844	7,113	7,659,358	18,597,541	8,256,051	2,516,707	8,305,670	37,029,658	45,335,328
Spices	8,594,641	7,251,025	0	0	8,794,617	17,318,418	2,495,340	0	15,845,666	28,608,375	44,454,041
Minor crops	11,841,748	22,947,970	548,316	0	4,486,521	22,255,408	1,401,533	0	35,338,034	28,143,462	63,481,497
Orchards	1,021,808	0	0	0	18,583,498	0	0	0	1,021,808	18,583,498	19,605,306
Totals	261,375,093	335,638,820	54,562,505	12,884,002	194,599,836	332,201,150	87,847,897	31,885,396	664,460,420	646,534,279	1,310,994,699
Total NCA											
Tk/ha(NCA)	24,826	21,895	12,779	8,142	9,282	8,787	5,073	4,369	20,032	7,812	11,010

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Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

SWCAR-3A wk1

CROP GROSS MARGINS BY PLANNING UNIT (1991 Economic Values)

(Crop Areas File : SWSCAR-3.wk1)

06-04-93

SC1	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	1,167,002	3,242,368	2,312,194	0	0	6,721,564	6,721,564
M Aus	3,748,697	25,149,758	0	0	3,025,887	3,802,626	0	0	28,898,455	6,828,513	35,726,968
B Aman	0	0	0	0	0	11,077,433	105,712,683	15,816,384	0	132,606,500	132,606,500
L T Aman	5,121	22,308,736	5,593,379	0	1,641,906	226,025	0	0	27,907,237	1,867,931	29,775,168
M Aman	9,581,749	14,564,684	0	0	15,898,563	8,178,170	0	0	24,146,433	24,076,733	48,223,167
Jute	0	0	0	0	14,718,785	64,426,751	25,019,566	0	0	104,165,103	104,165,103
Sugarcane	2,662,235	0	0	0	69,633,652	41,422,436	0	0	2,662,235	111,056,087	113,718,322
Rabi											
L Boro	0	0	0	2,577,941	0	0	0	15,728,461	2,577,941	15,728,461	18,306,402
M Boro	10,628,440	68,722,486	163,186,842	10,562,163	0	0	0	0	253,099,930	0	253,099,930
M Wheat	0	0	0	0	1,272,984	15,653,223	14,047,259	195,575	0	31,169,041	31,169,041
Potato	2,011,184	0	0	0	30,632	2,929,159	2,664,598	0	2,011,184	5,624,389	7,635,573
Pulses	302,383	4,166,985	1,647,266	0	6,759,838	46,915,713	31,687,579	3,169,588	6,116,634	88,532,719	94,649,353
Oilseeds	674,582	4,157,476	2,324,604	152,522	6,135,889	28,801,609	21,642,215	1,256,117	7,309,183	57,835,830	65,145,013
Spices	6,984,824	45,594,212	0	0	39,011,543	41,987,706	25,181,445	0	52,579,036	106,180,694	158,759,730
Minor crops	0	0	0	0	3,515,671	20,452,962	2,664,598	0	0	26,633,231	26,633,231
Orchards	0	0	0	0	8,230,479	0	0	0	0	8,230,479	8,230,479
Total	36,599,215	184,664,338	172,752,091	13,292,626	171,042,832	289,116,182	230,932,137	36,166,125	407,308,269	727,257,276	1,134,565,545
Total NCA	945	6,196	9,322	1,065	13,513	33,742	30,597	5,614	17,529	83,466	100,994
Tk/ha(NCA)	38,709	29,805	18,531	12,478	12,658	8,568	7,548	6,442	23,236	8,713	11,234

SC2	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	(1,518,388)	(6,046,631)	(853,820)	0	0	(8,418,840)	(8,418,840)
M Aus	462,547	3,103,194	0	0	3,519,290	9,685,028	0	0	3,565,741	13,204,317	16,770,058
B Aman	0	0	0	0	0	18,370,666	42,573,278	7,041,169	0	67,985,113	67,985,113
L T Aman	521,937	19,298,232	1,013,532	0	6,202,604	44,070,948	1,633,522	0	20,833,702	51,907,075	72,740,776
M Aman	8,312,164	28,386,969	0	0	5,999,942	6,828,457	0	0	36,699,133	12,828,400	49,527,533
Jute	0	0	0	0	6,492,512	35,236,293	8,760,766	0	0	50,489,571	50,489,571
Sugarcane	264,778	0	0	0	22,725,459	20,815,196	0	0	264,778	43,540,655	43,805,433
Rabi											
L Boro	0	0	0	430,405	0	0	0	5,686,578	430,405	5,686,578	6,116,983
M Boro	12,518,846	98,400,495	32,589,711	3,930,592	0	0	0	0	147,439,644	0	147,439,644
M Wheat	0	0	0	0	592,893	6,266,087	3,974,611	160,960	0	10,994,551	10,994,551
Potato	163,602	0	0	0	490,492	2,070,501	304,840	0	163,602	2,865,834	3,029,435
Pulses	614,249	519,041	205,184	0	6,694,370	16,670,440	14,628,973	1,119,476	1,338,473	39,113,259	40,451,732
Oilseeds	671,407	9,764,481	325,686	13,985	2,003,211	2,501,642	14,318,388	405,573	10,775,559	19,228,814	30,004,373
Spices	324,030	2,115,142	0	0	6,103,533	14,790,445	2,642,549	0	2,439,172	23,536,527	25,975,698
Minor crops	0	0	0	0	1,821,757	10,991,690	1,125,547	0	0	13,938,995	13,938,995
Orchards	0	0	0	0	5,727,911	0	0	0	0	5,727,911	5,727,911
Total	23,853,560	161,587,555	34,134,112	4,374,981	66,855,586	182,250,762	89,108,653	14,413,757	223,950,209	352,628,759	576,578,968
Total NCA	797	6,215	1,959	341	7,785	26,545	14,430	3,007	9,312	51,768	61,079
Tk/ha(NCA)	29,918	25,999	17,429	12,847	8,587	6,866	6,175	4,793	24,051	6,812	9,440

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Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

SWCAR-3A.wk1

CROP GROSS MARGINS BY PLANNING UNIT (1991 Economic Values) (Crop Areas File : SWSCAR-3.wk1)

06-04-93

SC3	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	1,038,071	5,075,019	1,980,839	0	0	8,093,929	8,093,929
M Aus	378,664	2,540,433	0	0	2,598,889	6,091,476	0	0	2,919,098	8,690,365	11,609,463
B Aman	0	0	0	0	0	6,302,994	38,931,640	22,480,369	0	67,715,004	67,715,004
L T Aman	531,442	22,534,623	3,343,494	0	2,996,262	21,545,159	73,414	0	26,409,560	24,614,835	51,024,394
M Aman	7,534,313	30,677,058	0	0	11,853,767	16,058,664	0	0	38,211,371	27,912,431	66,123,802
Jute	0	0	0	0	3,236,033	20,059,919	5,717,383	0	0	29,013,336	29,013,336
Sugarcane	209,923	0	0	0	16,275,309	15,341,549	0	0	209,923	31,616,858	31,826,781
Rabi											
L Boro	0	0	0	6,202,964	0	0	0	2,554,193	6,202,964	2,554,193	8,757,157
M Boro	11,400,093	105,561,043	97,546,433	1,145,100	0	0	0	0	215,652,669	0	215,652,669
M Wheat	0	0	0	0	1,890,370	2,120,293	1,004,572	8,055	0	5,023,292	5,023,292
Potato	143,309	0	0	0	1,092,339	1,759,876	1,241,403	0	143,309	4,093,618	4,236,927
Pulses	71,796	456,238	180,357	0	1,815,015	10,926,625	6,771,987	1,267,272	708,392	20,780,898	21,489,290
Oilseeds	929,738	13,487,454	225,152	14,200	904,794	5,324,466	4,870,373	283,048	14,656,545	11,382,681	26,039,226
Spices	339,533	2,216,342	0	0	4,977,193	13,716,308	3,678,076	0	2,555,875	22,371,577	24,927,452
Minor crops	0	0	0	0	1,499,993	9,370,077	1,297,340	0	0	12,167,410	12,167,410
Orchards	0	0	0	0	7,130,358	0	0	0	0	7,130,358	7,130,358
Total	21,538,812	177,473,192	101,295,436	7,362,264	57,308,394	133,692,425	65,567,028	26,592,937	307,669,704	283,160,783	590,830,487
Total NCA	685	6,260	5,572	1,162	3,646	12,832	9,459	4,851	13,679	30,787	44,467
Tk/ha(NCA)	31,424	28,352	18,178	6,337	15,720	10,419	6,932	5,482	22,492	9,197	13,287

SC4	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	1,917,934	9,425,355	6,197,389	0	0	17,540,678	17,540,678
M Aus	495	8,102	0	0	2,353,636	5,192,395	0	0	8,597	7,546,032	7,554,629
B Aman	0	0	0	0	0	5,472,078	54,542,131	51,516,797	0	111,531,006	111,531,006
L T Aman	433,861	17,337,368	3,222,976	0	4,688,475	35,551,884	14,392	2,172	20,994,205	40,256,922	61,251,127
M Aman	3,637,677	16,773,264	0	0	16,318,054	23,851,738	0	1,285	20,410,941	40,171,078	60,582,019
Jute	0	0	0	0	4,079,135	26,693,957	9,533,588	0	0	40,306,679	40,306,679
Sugarcane	0	0	0	0	18,494,813	17,513,628	0	0	0	36,008,441	36,008,441
Rabi											
L Boro	0	0	12,817	3,136,551	0	0	0	3,850,390	3,149,368	3,850,390	6,999,758
M Boro	4,028,069	40,004,574	44,858,224	9,407,401	0	0	0	0	98,298,267	0	98,298,267
M Wheat	55	3,109	0	0	2,220,083	3,369,297	0	3,995,576	3,164	9,584,956	9,588,120
Potato	214	4,051	461	0	2,068,149	2,425,595	2,397,302	0	4,726	6,891,046	6,895,772
Pulses	0	0	0	0	1,812,105	10,942,102	9,493,784	4,663,079	0	26,911,070	26,911,070
Oilseeds	508,670	7,262,099	245	0	1,204,774	4,897,284	7,483,270	4,076,283	7,771,013	17,661,611	25,432,624
Spices	0	0	0	0	5,555,426	16,632,042	4,399,349	0	0	26,586,817	26,586,817
Minor crops	429	22,956	461	0	2,054,803	12,091,038	2,397,302	0	23,846	16,543,144	16,566,990
Orchards	0	0	0	0	9,192,785	0	0	0	0	9,192,785	9,192,785
Total	8,609,469	81,415,524	48,095,182	12,543,952	71,960,172	174,058,394	96,458,508	68,105,581	150,664,127	410,582,655	561,246,782
Total NCA	350	3,478	3,900	1,443	4,516	15,593	13,868	13,009	9,171	46,986	56,157
Tk/ha(NCA)	24,589	23,406	12,334	8,693	15,934	11,163	6,956	5,235	16,428	8,738	9,994

Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

SWCAR-3A.wk1

CROP GROSS MARGINS BY PLANNING UNIT (1991 Economic Values)

06-04-93

(Crop Areas File : SWSCAR-3.wk1)

SC5	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	(800,380)	(2,193,850)	(290,511)	0	0	(3,284,741)	(3,284,741)
M Aus	12,545,900	5,401,465	0	0	784,619	1,415,489	0	0	17,947,365	2,200,108	20,147,472
B Aman	0	0	0	0	0	876,420	4,640,336	3,208,675	0	8,725,431	8,725,431
L T Aman	10,896,144	51,095,888	5,262,767	0	8,464,966	36,449,798	3,994	270	67,254,800	44,919,029	112,173,829
M Aman	114,522,834	46,693,558	0	0	8,110,799	15,608,777	0	145	161,216,393	23,719,721	184,936,113
Jute	0	0	0	0	741,085	3,445,807	732,576	0	0	4,919,469	4,919,469
Sugarcane	73,122	6,045	0	0	6,033,303	4,105,525	0	0	79,167	10,138,828	10,217,995
Rabi											
L Boro	0	11,673,193	29,922	7,536,350	0	0	0	255,454	19,239,465	255,454	19,494,919
M Boro	128,428,483	102,368,777	83,356,706	21,917	0	0	0	0	314,175,884	0	314,175,884
M Wheat	4,532,510	240,950	0	0	262,439	328,164	2,210	135	4,773,460	592,948	5,366,408
Potato	28,106,655	13,922,356	1,306	0	149,566	292,454	120,872	0	42,030,317	562,892	42,593,209
Pulses	46,870	72,644	0	0	981,510	4,385,189	653,871	160,141	119,514	6,180,711	6,300,225
Oilseeds	15,414,278	28,182,121	3,082	0	707,540	6,811,118	957,653	64,666	43,599,481	8,540,977	52,140,458
Spices	20,421,554	136,729	0	0	1,542,598	4,917,995	466,598	0	20,558,283	6,927,191	27,485,474
Minor crops	891,390	1,324,628	1,306	0	438,914	2,711,891	121,657	0	2,217,324	3,272,462	5,489,787
Orchards	0	0	0	0	1,796,743	0	0	0	0	1,796,743	1,796,743
Total	335,879,739	261,118,355	88,655,091	7,558,266	29,213,702	79,154,779	7,409,257	3,689,486	693,211,451	119,467,224	812,678,675
Total NCA	17,010	14,113	8,401	1,919	3,210	10,826	1,819	1,120	41,443	16,974	58,417
Tk/ha(NCA)	19,746	18,502	10,553	3,939	9,102	7,312	4,074	3,296	16,727	7,038	13,912

SC6	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	(2,082,185)	(7,812,854)	(205,327)	0	0	(10,100,366)	(10,100,366)
M Aus	648,772	203,068	0	0	2,013,965	5,350,196	0	0	851,840	7,364,161	8,216,001
B Aman	0	0	0	0	0	13,091,596	26,303,616	5,362,007	0	44,757,219	44,757,219
L T Aman	942,488	16,471,513	482,147	0	10,405,729	62,505,779	1,739,046	0	17,896,148	74,650,554	92,546,702
M Aman	11,191,178	19,138,267	0	0	8,171,146	13,156,112	0	0	30,329,444	21,327,258	51,656,702
Jute	0	0	0	0	3,950,841	22,501,100	4,825,945	0	0	31,277,885	31,277,885
Sugarcane	0	0	0	0	14,159,763	14,129,902	0	0	0	28,289,665	28,289,665
Rabi											
L Boro	0	574,628	6,579	283,283	0	0	0	2,654,826	864,490	2,654,826	3,519,316
M Boro	10,631,187	42,261,891	7,628,086	1,190,190	0	0	0	0	61,711,354	0	61,711,354
M Wheat	212,081	4,945	0	0	392,153	3,110,511	1,690,212	102,890	217,026	5,295,766	5,512,792
Potato	1,664,236	770,499	0	0	408,085	1,337,000	52,367	0	2,434,735	1,797,452	4,232,187
Pulses	302,594	1,736	209	0	4,084,839	8,752,676	6,891,761	523,417	304,538	20,252,693	20,557,231
Oilseeds	1,151,817	10,009,061	112,440	0	2,016,525	2,891,767	14,695,535	382,835	11,273,317	19,986,662	31,259,980
Spices	925,466	1,881	0	0	4,094,046	12,059,907	1,358,086	0	927,347	17,512,039	18,439,386
Minor crops	10,373	37,785	2,065	0	1,273,089	7,704,319	652,655	0	50,223	9,630,063	9,680,286
Orchards	0	0	0	0	4,245,877	0	0	0	0	4,245,877	4,245,877
Total	27,680,191	89,475,272	8,231,526	1,473,473	53,133,872	158,778,011	58,003,896	9,025,975	126,860,462	278,941,754	405,802,216
Total NCA	1,252	4,407	770	204	6,815	23,895	9,750	2,393	6,632	42,853	49,485
Tk/ha(NCA)	22,114	20,304	10,696	7,225	7,796	6,645	5,949	3,772	19,128	6,509	8,201

Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

SWCAR-3A.wk1

CROP GROSS MARGINS BY PLANNING UNIT (1991 Economic Values) (Crop Areas File : SWSCAR-3.wk1)

06-04-93

SC7	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	59,770	146,834	0	0	0	206,604	206,604
M Aus	25,752,614	14,757,511	0	0	786,588	1,268,337	0	0	40,510,125	2,054,925	42,565,050
B Aman	0	0	0	0	0	334,676	90,302	11,833	0	436,812	436,812
L T Aman	19,997,564	42,181,464	143,301	0	14,145,427	60,163,897	291,213	0	62,322,330	74,600,536	136,922,866
M Aman	222,589,228	38,328,750	0	0	9,246,063	21,797,992	0	0	260,916,978	31,044,055	291,961,033
Jute	0	0	0	0	602,257	936,375	11,068	0	0	1,549,700	1,549,700
Sugarcane	754,822	0	0	0	4,949,128	1,933,680	0	0	754,822	6,882,808	7,637,630
Rabi											
L Boro	0	21,733,762	549,813	0	0	0	0	0	22,283,575	0	22,283,575
M Boro	241,635,126	34,061,582	956,050	59,410	0	0	0	0	276,712,169	0	276,712,169
M Wheat	8,985,953	1,280,805	0	0	684	486,687	4,147	252	10,266,758	491,770	10,758,528
Potato	62,892,158	33,922,615	0	0	69,034	300,710	0	0	96,814,773	369,744	97,184,517
Pulses	260,451	506,060	21,065	0	1,333,756	6,708,176	33,694	1,389	787,575	8,077,015	8,864,590
Oilseeds	10,943,109	708,565	2,899	0	371,186	3,582,037	22,912	517	11,654,572	3,976,652	15,631,224
Spices	48,248,562	862,652	0	0	1,707,043	6,022,020	11,148	0	49,111,214	7,740,211	56,851,425
Minor crops	5,174,210	9,193,216	167,310	0	381,589	2,502,523	1,472	0	14,534,735	2,885,583	17,420,319
Orchards	0	0	0	0	1,747,939	0	0	0	0	1,747,939	1,747,939
Total	647,232,796	197,536,983	1,840,438	59,410	35,400,463	106,183,944	485,956	13,991	846,669,626	142,064,354	988,733,980
Total NCA	28,880	10,553	202	6	3,683	13,281	65	5	39,641	17,033	56,674
Tk/ha(NCA)	22,411	18,719	9,110	9,792	9,611	7,995	7,218	2,987	21,359	8,340	17,446

SC8	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	(16,042,630)	(47,397,971)	0	0	0	(63,440,601)	(63,440,601)
M Aus	3,666,850	2,833,236	0	0	1,965,249	6,714,102	0	0	6,500,085	8,679,351	15,179,436
B Aman	0	0	0	0	0	636,268	2,401,946	198,631	0	3,236,845	3,236,845
L T Aman	4,537,008	30,234,698	765,760	0	154,418,653	731,903,231	26,022,815	0	35,537,467	912,344,699	947,882,166
M Aman	84,471,139	23,739,772	0	0	15,506,590	21,308,310	0	0	108,210,911	36,814,900	145,025,812
Jute	0	0	0	0	3,876,196	13,729,972	225,464	0	0	17,831,632	17,831,632
Sugarcane	3,296,031	0	0	0	8,446,451	608,814	0	0	3,296,031	9,055,264	12,351,296
Rabi											
L Boro	0	3,181,671	3,241,059	0	0	0	0	116,434	6,422,729	116,434	6,539,164
M Boro	91,868,250	63,611,198	4,370,176	67,220	0	0	0	0	159,916,843	0	159,916,843
M Wheat	6,884,938	2,735,861	0	0	13,925	162,557	84,476	5,142	9,620,800	256,101	9,876,900
Potato	0	1,159,104	0	0	2,475,144	63,212	0	0	1,159,104	2,538,355	3,697,460
Pulses	351,223	1,094,970	131,655	0	8,427,014	70,937,920	1,696,077	26,714	1,577,848	81,087,728	82,665,574
Oilseeds	604,606	2,429,699	6,649	0	7,159,860	30,358,111	1,143,041	18,394	3,040,955	38,679,405	41,720,360
Spices	10,392,360	1,376,534	0	0	6,683,745	45,004,672	825,893	0	11,768,894	52,514,310	64,283,204
Minor crops	3,500,336	12,750,147	696,830	0	2,509,762	17,195,672	30,002	0	16,947,312	19,735,436	36,682,748
Orchards	0	0	0	0	14,920,098	0	0	0	0	14,920,098	14,920,098
Total	209,572,741	145,146,891	9,212,128	87,220	210,360,056	891,214,870	32,429,715	365,316	363,998,980	1,134,369,957	1,498,368,936
Total NCA	11,838	8,047	1,203	8	36,942	126,911	4,693	95	21,096	168,641	189,737
Tk/ha(NCA)	17,704	18,037	7,657	8,435	5,694	7,022	6,911	3,829	17,254	6,727	7,897

Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

SWCAR-3A.wk1

CROP GROSS MARGINS BY PLANNING UNIT (1991 Economic Values)

(Crop Areas File : SWSCAR-3.wk1)

06-04-93

SC9	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	(5,327,702)	(19,376,147)	0	0	0	(24,703,849)	(24,703,849)
M Aus	269,672	433,000	0	0	448,674	1,333,649	0	0	702,672	1,782,322	2,484,994
B Aman	0	0	0	0	0	407,351	341,938	0	0	749,289	749,289
L T Aman	530,342	4,532,133	83,880	0	53,159,357	255,023,694	7,128,692	0	5,146,355	315,311,744	320,458,099
M Aman	10,062,021	3,635,305	0	0	7,557,090	27,811,322	0	0	13,697,326	35,368,412	49,065,738
Jute	0	0	0	0	1,978,078	3,542,007	0	0	0	5,520,085	5,520,085
Sugarcane	397,442	0	0	0	2,667,024	0	0	0	397,442	2,667,024	3,064,466
Rabi											
L Boro	0	45,434	44,670	0	0	0	0	0	90,104	0	90,104
M Boro	1,405,160	1,118,628	60,972	0	0	0	0	0	2,584,760	0	2,584,760
M Wheat	811,795	386,016	0	0	0	1,562,721	0	0	1,197,811	1,562,721	2,760,532
Potato	70,156	415,588	0	0	830,113	970,539	0	0	485,743	1,800,652	2,286,395
Pulses	67,629	192,859	19,087	0	3,458,373	34,371,706	464,674	0	279,575	38,294,752	38,574,327
Oilseeds	68,684	247,297	0	0	2,069,506	10,687,183	108,334	0	315,981	12,865,022	13,181,004
Spices	1,239,241	212,940	0	0	2,561,624	17,483,958	208,608	0	1,452,182	20,254,190	21,706,372
Minor crops	632,403	1,782,618	79,341	0	685,789	5,680,319	0	0	2,494,362	6,366,108	8,860,470
Orchards	0	0	0	0	6,423,910	0	0	0	0	6,423,910	6,423,910
Total	15,554,545	13,001,819	287,951	0	76,511,835	339,498,302	8,252,245	0	28,844,314	424,262,382	453,106,696
Total NCA	1,424	1,210	134	0	12,399	49,670	1,189	0	2,768	63,259	66,027
Tk/ha(NCA)	10,923	10,746	2,146	ERR	6,171	6,835	6,939	ERR	10,420	6,707	6,862

SC10	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	(3,406,741)	(18,146,700)	0	0	0	(21,553,441)	(21,553,441)
M Aus	534,511	1,554,350	0	0	529,324	1,191,774	0	0	2,088,861	1,721,097	3,809,958
B Aman	0	0	0	0	0	776,239	68,431	0	0	844,670	844,670
L T Aman	502,869	7,100,680	30,771	0	29,860,297	146,597,599	1,138,512	0	7,634,320	177,596,407	185,230,727
M Aman	9,234,476	6,886,116	0	0	10,146,871	55,555,271	0	0	16,120,592	65,702,142	81,822,735
Jute	0	0	0	0	2,485,012	851,862	0	0	0	3,336,874	3,336,874
Sugarcane	281,312	0	0	0	2,475,647	395,303	0	0	281,312	2,870,950	3,152,262
Rabi											
L Boro	0	62,486	20,107	0	0	0	0	0	82,593	0	82,593
M Boro	2,248,699	2,846,299	49,812	0	0	0	0	0	5,144,810	0	5,144,810
M Wheat	600,146	536,628	0	0	0	3,674,815	0	0	1,136,774	3,674,815	4,811,588
Potato	947,843	1,851,166	0	0	468,487	2,282,271	0	0	2,799,009	2,750,758	5,549,767
Pulses	63,470	126,310	4,122	0	1,066,838	13,802,874	43,689	0	193,901	14,913,402	15,107,303
Oilseeds	273,385	269,650	0	0	776,338	7,417,358	16,958	0	543,034	8,210,654	8,753,688
Spices	1,487,798	371,105	0	0	2,464,064	15,300,550	39,271	0	1,858,903	17,803,886	19,662,789
Minor crops	1,435,456	2,414,941	34,308	0	215,406	3,661,061	0	0	3,884,705	3,876,467	7,761,172
Orchards	0	0	0	0	6,420,513	0	0	0	0	6,420,513	6,420,513
Total	17,609,963	24,019,730	139,119	0	53,502,056	233,360,277	1,306,862	0	41,768,813	288,169,195	329,938,008
Total NCA	1,392	2,189	59	0	7,642	42,549	232	0	3,640	50,423	54,064
Tk/ha(NCA)	12,651	10,973	2,339	ERR	7,001	5,485	5,622	ERR	11,474	5,715	6,103

Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

SWCAR-3A.wk1

CROP GROSS MARGINS BY PLANNING UNIT (1991 Economic Values)

(Crop Areas File : SWSCAR-3.wk1)

06-04-93

SC11	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	(1,472,998)	(6,265,421)	0	0	0	(7,738,419)	(7,738,419)
M Aus	14,743,610	23,619,222	0	0	1,337,130	2,511,704	0	0	38,362,832	3,848,834	42,211,666
B Aman	0	0	0	0	0	802,863	20,181	0	0	823,044	823,044
L T Aman	8,175,649	49,758,496	10,930	0	27,275,651	128,839,441	51,148	0	57,945,075	156,166,240	214,111,315
M Aman	111,833,388	49,927,917	0	0	14,715,567	61,114,194	0	0	161,761,305	75,829,761	237,591,066
Jute	0	0	0	0	2,368,873	864,542	0	0	0	3,233,415	3,233,415
Sugarcane	931,441	0	0	0	5,407,976	1,782,715	0	0	931,441	7,190,692	8,122,133
Rabi											
L Boro	0	10,741,710	109,112	0	0	0	0	0	10,850,822	0	10,850,822
M Boro	114,521,906	63,652,164	71,776	0	0	0	0	0	178,245,846	0	178,245,846
M Wheat	5,207,051	2,999,275	0	0	0	3,413,183	0	0	8,206,326	3,413,183	11,619,509
Potato	23,068,917	20,620,359	0	0	321,021	2,119,783	0	0	43,689,276	2,440,804	46,130,080
Pulses	393,763	688,016	1,464	0	1,323,335	12,610,844	1,963	0	1,083,242	13,936,142	15,019,385
Oilseeds	5,910,938	1,078,407	0	0	596,777	6,812,230	559	0	6,989,345	7,409,566	14,398,911
Spices	26,485,338	2,251,562	0	0	3,207,296	15,625,783	1,764	0	28,736,901	18,834,843	47,571,744
Minor crops	9,337,476	13,348,034	12,187	0	395,004	4,379,100	0	0	22,697,696	4,774,105	27,471,801
Orchards	0	0	0	0	6,051,345	0	0	0	0	6,051,345	6,051,345
Total	320,609,478	238,685,159	205,470	0	61,526,978	234,610,962	75,616	0	559,500,107	296,213,555	855,713,662
Total NCA	17,030	15,662	32	0	7,702	40,248	19	0	32,724	47,968	80,692
Tk/ha(NCA)	18,826	15,240	6,389	ERR	7,989	5,829	4,050	ERR	17,098	6,175	10,605

SC12	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	(482,980)	(1,847,719)	(636)	0	0	(2,331,335)	(2,331,335)
M Aus	821,920	1,388,995	0	0	516,482	1,365,642	0	0	2,210,914	1,882,124	4,093,038
B Aman	0	0	0	0	0	552,912	273,309	5,375	0	831,596	831,596
L T Aman	1,015,661	8,462,704	132,182	0	35,464,048	171,027,270	4,024,810	2,812	9,610,547	210,518,940	220,129,487
M Aman	17,608,586	6,832,441	0	0	6,681,011	26,483,684	0	1,498	24,441,027	33,166,193	57,607,220
Jute	0	0	0	0	1,510,144	2,116,901	418	0	0	3,627,463	3,627,463
Sugarcane	584,053	5,941	0	0	2,207,286	316,416	0	0	589,993	2,523,701	3,113,695
Rabi											
L Boro	0	268,181	197,126	8,330	0	0	0	0	473,636	0	473,636
M Boro	4,381,399	3,453,273	169,487	589	0	0	0	0	8,004,747	0	8,004,747
M Wheat	1,352,570	680,938	0	0	175	1,739,155	0	0	2,033,508	1,739,330	3,772,838
Potato	582,518	1,083,604	1,095	0	551,790	1,032,072	72	0	1,667,217	1,583,934	3,251,151
Pulses	82,591	219,637	19,302	0	1,588,223	16,015,805	187,065	735	321,530	17,791,827	18,113,357
Oilseeds	203,632	275,801	466	0	867,802	5,272,454	64,169	555	479,899	6,204,980	6,684,878
Spices	2,279,906	363,625	0	0	1,834,569	11,686,285	109,365	0	2,643,531	13,630,218	16,273,749
Minor crops	1,145,864	2,946,309	114,757	0	454,848	4,017,642	72	0	4,206,930	4,472,562	8,679,492
Orchards	0	0	0	0	4,872,952	0	0	0	0	4,872,952	4,872,952
Total	30,058,702	25,981,447	634,414	8,918	56,066,348	239,778,517	4,658,645	10,975	56,683,481	300,514,485	357,197,966
Total NCA	2,173	1,936	181	6	7,104	30,221	598	2	4,296	37,925	42,221
Tk/ha(NCA)	13,835	13,419	3,498	1,570	7,892	7,934	7,793	5,234	13,195	7,924	8,460

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Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

SWCAR-3A wk1

CROP GROSS MARGINS BY PLANNING UNIT (1991 Economic Values) (Crop Areas File : SWSCAR-3.wk1)

06-04-93

SC13	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	(4,552,313)	(13,398,777)	0	0	0	(17,951,089)	(17,951,089)
M Aus	187,973	145,239	0	0	281,635	967,089	0	0	333,212	1,248,724	1,581,936
B Aman	0	0	0	0	0	0	339,431	0	0	339,431	339,431
LT Aman	438,603	2,856,375	72,763	0	43,371,790	205,345,255	7,299,819	0	3,367,741	256,016,864	259,384,605
M Aman	8,326,051	2,270,549	0	0	4,402,841	6,047,459	0	0	10,596,600	10,450,300	21,046,900
Jute	0	0	0	0	1,056,262	3,627,034	0	0	0	4,683,297	4,683,297
Sugarcane	325,656	0	0	0	2,256,227	0	0	0	325,656	2,256,227	2,581,883
Rabi											
L Boro	0	37,904	38,611	0	0	0	0	0	76,515	0	76,515
M Boro	1,180,810	791,804	52,891	0	0	0	0	0	2,025,505	0	2,025,505
M Wheat	680,249	270,310	0	0	0	0	0	0	950,559	0	950,559
Potato	0	192,300	0	0	702,252	0	0	0	192,300	702,252	894,552
Pulses	39,146	129,630	15,586	0	2,815,301	24,168,223	447,925	0	184,362	27,431,449	27,615,811
Oilseeds	56,240	186,234	0	0	2,022,318	8,680,390	117,003	0	242,474	10,819,711	11,062,185
Spices	1,026,791	136,005	0	0	1,846,099	12,678,412	213,615	0	1,162,796	14,738,127	15,900,923
Minor crops	580,720	2,115,303	115,607	0	702,252	4,822,839	0	0	2,811,630	5,525,091	8,336,721
Orchards	0	0	0	0	4,213,511	0	0	0	0	4,213,511	4,213,511
Total	12,842,240	9,131,654	295,458	0	59,118,176	252,937,925	8,417,793	0	22,269,351	320,473,894	342,743,245
Total NCA	1,167	773	116	0	10,489	36,018	1,214	0	2,056	47,721	49,777
Tk/ha(NCA)	11,006	11,817	2,544	ERR	5,636	7,023	6,936	ERR	10,833	6,716	6,886

SC Total	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	(31,503,541)	(104,596,493)	9,140,129	0	0	(126,959,905)	(126,959,905)
M Aus	63,762,224	81,137,573	0	0	20,161,367	46,889,507	0	0	144,899,796	67,050,873	211,950,670
B Aman	0	0	0	0	0	58,701,498	276,239,223	105,641,240	0	440,581,960	440,581,960
LT Aman	48,528,691	294,172,911	20,157,882	0	392,095,164	1,899,249,981	49,421,378	5,255	362,859,484	2,340,771,777	2,703,631,262
M Aman	618,903,803	287,854,653	0	0	134,608,305	303,800,150	0	2,928	906,758,456	438,411,383	1,345,169,839
Jute	0	0	0	0	47,095,214	198,032,521	54,826,775	0	0	299,954,510	299,954,510
Sugarcane	9,780,815	11,985	0	0	175,732,038	118,365,163	0	0	9,792,800	294,097,200	303,890,001
Rabi											
L Boro	0	48,318,968	4,249,817	20,175,823	0	0	0	30,846,336	72,744,608	30,846,336	103,590,944
M Boro	634,876,467	626,854,215	434,897,165	26,384,580	0	0	0	0	1,723,012,427	0	1,723,012,427
M Wheat	29,267,348	9,138,837	0	0	6,645,705	41,876,693	20,807,488	4,468,586	38,406,185	73,798,473	112,204,658
Potato	119,650,791	73,941,642	2,862	0	9,657,102	17,583,173	6,781,455	0	193,595,295	34,021,730	227,617,025
Pulses	2,596,164	8,174,125	2,245,297	0	42,160,516	277,208,296	73,003,041	10,931,810	13,015,586	403,303,663	416,319,248
Oilseeds	37,411,086	78,058,345	3,001,220	180,707	26,836,519	124,037,647	65,440,409	6,487,988	118,651,359	222,802,564	341,453,923
Spices	120,155,405	55,638,727	0	0	81,588,780	227,906,081	39,135,768	0	175,794,133	348,630,629	524,424,762
Minor crops	22,708,657	45,935,938	1,224,172	0	15,948,879	105,581,133	8,290,645	0	69,868,764	129,820,658	199,689,422
Orchards	0	0	0	0	80,974,422	0	0	0	0	80,974,422	80,974,422
Total	1,707,641,450	1,609,237,918	465,778,415	46,741,111	1,002,000,471	3,314,635,350	603,086,310	158,384,143	3,829,398,894	5,078,106,273	8,907,505,167
Total NCA	84,943	81,038	31,852	6,153	125,446	462,329	87,932	30,096	203,987	705,803	909,790
Tk/ha(NCA)	20,103	19,858	14,623	7,595	7,988	7,169	6,859	5,263	18,773	7,195	9,791

Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

SWCAR-3A.wk1

CROP GROSS MARGINS BY PLANNING UNIT (1991 Economic Values) (Crop Areas File : SWSCAR-3.wk1)

06-04-93

TOTAL	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	55 493 153	(42 928 372)	39 019 981	0	0	51 584 762	51 584 762
M Aus	260 569 762	493 541 976	0	0	33 320 620	72 644 678	0	0	754 111 738	105 965 249	860 076 987
B Aman	0	0	0	0	0	152 629 196	852 461 732	380 944 949	0	1 386 035 877	1 386 035 877
L T Aman	188 886 408	1 170 205 229	57 040 269	0	813 023 532	3 693 676 944	102 167 897	434 055	1 416 131 906	4 609 302 428	6 025 434 334
M Aman	1 903 420 178	1 136 885 967	0	0	696 065 044	941 044 024	0	316 970	3 040 306 145	1 637 426 038	4 677 732 183
Jute	0	0	0	0	468 816 611	762 495 247	182 585 100	0	0	1 413 896 950	1 413 896 950
Sugarcane	435 028 958	89 119 972	0	0	542 523 379	202 564 845	0	0	524 148 929	825 088 224	1 349 237 153
Rabi											
L Boro	0	48 324 134	6 217 339	48 829 949	0	0	6 079 314	90 056 317	103 421 422	96 135 631	199 557 053
M Boro	1 635 715 543	2 178 243 735	1 068 510 309	172 937 098	16 224 791	0	0	0	5 060 414 685	16 224 791	5 076 639 476
M Wheat	269 685 576	310 844 934	56 770 509	0	23 051 868	126 388 216	56 923 404	32 698 811	637 301 019	239 062 300	876 363 319
Potato	133 360 886	120 035 684	5 156 248	0	52 420 008	75 302 798	61 432 167	903 006	258 552 819	190 057 979	448 610 798
Pulses	28 118 779	82 181 606	15 665 169	19 799	266 774 639	629 709 929	249 279 506	57 703 689	125 985 354	1 203 467 762	1 329 453 117
Oilseeds	68 827 831	154 437 577	11 305 042	280 293	134 067 538	304 403 217	181 025 127	41 721 891	234 930 743	741 217 773	976 148 516
Spices	240 480 377	157 153 079	0	0	204 713 423	470 363 936	74 070 526	0	397 633 456	749 147 885	1 146 781 341
Minor crops	188 493 135	367 207 512	8 900 599	0	78 760 176	417 156 842	27 912 112	0	564 601 247	523 829 131	1 088 430 378
Orchards	14 305 312	0	0	0	341 143 389	0	0	0	14 305 312	341 143 389	355 448 701
Total	5,366,892,746	6,308,181,404	1,229,653,485	227,117,139	3,726,398,170	7,965,451,451	1,832,956,868	604,779,688	13,131,844,774	14,129,586,177	27,261,430,951
Total NCA	233 521	297 710	86 681	22 962	429 048	1 009 550	310 682	118 845	640 874	1 868 126	2 509 000
Tk/ha(NCA)	22.983	21.189	14.186	9.891	8.685	7.890	5.900	5.089	20.491	7.564	10.865

SC Avg	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	0	0	0	0	(2 423 349)	(8 045 884)	703 087	0	0	(9 766 147)	(9 766 147)
M Aus	4 904 786	6 241 352	0	0	1 550 874	3 606 885	0	0	11 146 138	5 157 759	16 303 898
B Aman	0	0	0	0	0	4 515 500	21 249 171	8 126 249	0	33 890 920	33 890 920
L T Aman	3 732 976	22 628 685	1 550 606	0	30 161 166	146 096 152	3 801 644	404	27 912 268	180 059 367	207 971 636
M Aman	47 607 985	22 142 666	0	0	10 354 485	23 369 242	0	225	69 750 650	33 723 953	103 474 603
Jute	0	0	0	0	3 622 709	15 233 271	4 217 444	0	0	23 073 424	23 073 424
Sugarcane	752 370	922	0	0	13 517 849	9 105 013	0	0	753 292	22 622 862	23 376 154
Rabi											
L Boro	0	3 716 844	326 909	1 551 986	0	0	0	2 372 795	5 595 739	2 372 795	7 968 534
M Boro	48 836 651	48 219 555	33 453 628	2 029 583	0	0	0	0	132 539 417	0	132 539 417
M Wheat	2 251 334	702 987	0	0	511 208	3 221 284	1 600 576	343 737	2 954 322	5 676 806	8 631 128
Potato	9 203 907	5 687 819	220	0	742 854	1 352 552	521 650	0	14 891 946	2 617 056	17 509 002
Pulses	199 705	628 779	172 715	0	3 243 117	21 323 715	5 615 619	840 908	1 001 199	31 023 359	32 024 558
Oilseeds	2 877 776	6 004 488	230 863	13 901	2 064 348	9 541 357	5 033 878	499 076	9 127 028	17 138 659	26 265 686
Spices	9 242 723	4 279 902	0	0	6 276 060	17 531 237	3 010 444	0	13 522 626	26 817 741	40 340 366
Minor crops	1 746 820	3 533 534	94 167	0	1 226 837	8 121 626	637 742	0	5 374 520	9 986 204	15 360 725
Orchards	0	0	0	0	6 228 802	0	0	0	0	6 228 802	6 228 802
Total	131 357 035	123 787 532	35 829 109	3 595 470	77 076 959	254 971 950	46 391 255	12 183 396	294 569 146	390 623 559	685 192 705
Tk/ha(NCA)	21.066	18.871	9.339	ERR	9.215	7.623	6.392	ERR	17.207	7.332	10.025

APPENDIX H

Present (1991) Gross Production from Crops of Selected Nutrition indicators in SWA.

The Tables attached give details of estimated production and origin of food energy, carbohydrate, protein and fat for each SWA Planning Unit derived from 1991 production data (ref Volume 6, Land Resources Agriculture and Fisheries) and accepted requirements. (Refer to Section 5.2).

NUTRIENT COMPOSITION : ENERGY PER PERSON (Kcal/Person)

(Nutrient Composition Energy File : SWCEN-3D.wk1)

08-04-93

SW1	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	73661	57588	27556	-	-	158804	158804
M Aus	24120	44581	-	-	-	-	-	-	68701	-	68701
B Aman	-	-	-	-	-	175	27549	2948	-	30673	30673
L T Aman	559	54754	854	-	32	232	-	-	56167	263	56430
M Aman	70472	41258	-	-	25000	6279	-	-	111730	31279	143009
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	55167	21607	-	-	18733	23813	-	-	76773	42546	119319
Rabi											
L Boro	-	-	-	1487	-	-	-	3595	1487	3595	5082
M Boro	16589	50320	7052	30	9020	-	-	-	73990	9020	83011
M Wheat	44452	51251	8957	-	1876	15409	-	1237	104660	18521	123181
Potato	-	2030	415	-	1129	-	483	122	2445	1734	4179
Pulses	2955	572	257	7	8631	14603	6206	736	3790	30175	33965
Oilseeds	2683	5884	-	11	7486	2706	3720	1184	8578	15096	23674
Spices	862	107	-	-	1022	2192	-	-	970	3213	4183
Minor crops	13886	1715	-	-	-	11723	-	-	15602	11723	27325
Orchards	7814	-	-	-	2170	-	-	-	7814	2170	9984
Total	239558	274080	17535	1534	148760	134720	65513	9822	532706	358815	891521

SW2	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	5094	9294	5328	-	-	19716	19716
M Aus	29618	76759	-	-	21	121	-	-	106377	142	106519
B Aman	-	-	-	-	-	1071	3329	1083	-	5483	5483
L T Aman	17202	85999	1579	-	183	1233	2	-	104780	1417	106197
M Aman	206468	79382	-	-	5249	5658	-	-	285850	10907	296757
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	148025	21045	-	-	13434	4102	-	-	169070	17536	186606
Rabi											
L Boro	-	-	-	1414	-	-	-	30	1414	30	1444
M Boro	222386	156090	19691	915	16	-	-	-	399083	16	399099
M Wheat	44614	42710	11175	-	56	3423	156	6	98500	3641	102141
Potato	-	70	3	-	789	1	1	0	73	792	865
Pulses	54	17579	5	0	536	3825	1679	190	17638	6231	23869
Oilseeds	4344	18527	4	0	718	672	1255	53	22875	2698	25573
Spices	3112	2149	-	-	14	39	7	-	5262	61	5322
Minor crops	14248	28416	16	-	30	593	16	-	42680	639	43320
Orchards	47	-	-	-	1023	-	-	-	47	1023	1070
Total	690119	528727	32474	2330	27164	30032	11774	1362	1253650	70332	1323981

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ENER-3DA.wk1

NUTRIENT COMPOSITION : ENERGY PER PERSON (Kcal/Person)

(Nutrient Composition Energy File : SWCEN-3D.wk1)

08-04-93

SW3	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	28584	41706	7547	-	-	77838	77838
M Aus	8056	27037	-	-	1497	8108	-	-	35094	9605	44699
B Aman	-	-	-	-	-	13412	46134	15177	-	74723	74723
L T Aman	653	20485	1113	-	666	4720	-	-	22252	5386	27637
M Aman	16191	20850	-	-	14481	14898	-	-	37041	29379	66420
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	1432	79	-	-	59052	26730	-	-	1511	85782	87293
Rabi											
L Boro	-	-	-	2094	-	-	-	1660	2094	1660	3754
M Boro	14883	58154	27852	400	-	-	-	-	101288	-	101288
M Wheat	8380	25206	5404	-	3041	18160	8938	-	38991	30140	69130
Potato	12	227	-	-	760	79	71	-	239	910	1149
Pulses	195	934	71	-	6291	25847	10203	819	1200	43161	44361
Oilseeds	228	1277	107	7	4122	17260	7600	463	1619	29445	31063
Spices	158	399	-	-	966	2559	568	-	557	4093	4650
Minor crops	142	1406	64	-	1587	6298	936	-	1612	8821	10432
Orchards	-	-	-	-	4715	-	-	-	-	4715	4715
Total	50330	156055	34611	2500	125761	179779	81997	18120	243497	405656	649153

SW4	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	49365	27740	6883	-	-	83988	83988
M Aus	14617	19957	-	-	1380	-	-	-	34574	1380	35954
B Aman	-	-	-	-	-	7954	18915	6180	-	33049	33049
L T Aman	12428	31435	1057	-	22528	29813	1282	-	44919	53623	98542
M Aman	56849	33462	-	-	45588	9271	-	-	90311	54859	145170
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	24888	5757	-	-	41803	5965	-	-	30644	47768	78412
Rabi											
L Boro	-	-	-	1766	-	-	-	776	1766	776	2542
M Boro	55770	64685	15872	1489	145	-	-	-	137816	145	137962
M Wheat	22214	27108	2729	-	1843	5561	10243	3205	52051	20852	72903
Potato	638	2839	267	-	787	483	7	2	3744	1279	5023
Pulses	2026	1595	784	0	21626	10361	5545	801	4405	38333	42737
Oilseeds	1655	2447	519	0	11872	13620	4331	336	4622	30159	34781
Spices	380	359	-	-	475	330	-	-	739	804	1544
Minor crops	9476	17067	556	-	1335	2094	-	-	27099	3429	30528
Orchards	155	-	-	-	4580	-	-	-	155	4580	4735
Total	201095	206711	21784	3256	203326	113191	47206	11300	432845	375024	807869

NUTRIENT COMPOSITION : ENERGY PER PERSON (Kcal/Person)

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SW5	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	39773	51291	10024	-	-	101088	101088
M Aus	8573	22011	-	-	1287	6771	-	-	30585	8058	38643
B Aman	-	-	-	-	-	14850	52107	17221	-	84178	84178
L T Aman	2562	25549	1319	-	5256	14734	1789	-	29430	21779	51209
M Aman	22397	22268	-	-	23409	17807	-	-	44665	41216	85880
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	5361	1064	-	-	63917	26279	-	-	6425	90196	96621
Rabi											
L Boro	-	-	-	3126	-	-	-	2647	3126	2647	5773
M Boro	18236	46395	20146	2090	-	-	-	-	86867	-	86867
M Wheat	11279	25407	5334	-	3099	17903	9571	514	42019	31086	73105
Potato	56	606	45	-	2073	193	1707	-	707	3972	4679
Pulses	318	889	72	-	8836	24872	10803	1073	1279	45584	46862
Oilseeds	578	1656	274	-	5913	18757	9579	942	2508	35192	37700
Spices	156	222	-	-	747	1965	379	-	377	3091	3468
Minor crops	1012	4454	218	-	3025	10817	1720	-	5684	15563	21246
Orchards	-	-	-	-	10181	-	-	-	-	10181	10181
Total	70525	150521	27408	5216	167516	206239	97678	22397	253670	493830	747501

SW6	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	31224	44458	7780	-	-	83462	83462
M Aus	8863	29181	-	-	1608	9010	-	-	38044	10619	48663
B Aman	-	-	-	-	-	14652	49860	19171	-	83683	83683
L T Aman	706	22364	1135	-	688	5289	-	-	24204	5977	30181
M Aman	17412	23063	-	-	15898	16808	-	-	40475	32705	73180
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	1014	28	-	-	62635	27869	-	-	1042	90503	91545
Rabi											
L Boro	-	-	-	2249	-	-	-	1448	2249	1448	3698
M Boro	15676	63425	27465	2224	-	-	-	-	108790	-	108790
M Wheat	9393	28521	6109	-	3353	19657	8984	821	44022	32815	76837
Potato	-	1191	-	-	2172	88	150	-	1191	2410	3601
Pulses	196	763	-	-	6507	25963	10116	1119	959	43705	44664
Oilseeds	224	1299	-	-	4426	18133	8055	967	1524	31581	33104
Spices	108	199	-	-	752	2150	439	-	308	3340	3648
Minor crops	668	7216	333	-	4223	16358	2542	-	8217	23122	31339
Orchards	-	-	-	-	12625	-	-	-	-	12625	12625
Total	54260	177251	35042	4473	146110	200433	87926	23527	271025	457996	729021

NUTRIENT COMPOSITION : ENERGY PER PERSON (Kcal/Person)

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SW7	IRRIGATED				NON-IRRIGATED				Total		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	12228	30700	37673	-	-	80601	80601
M Aus	1699	9074	-	-	1913	2847	-	-	10773	4760	15533
B Aman	-	-	-	-	-	3451	59478	52523	-	115452	115452
L T Aman	117	10125	3091	-	382	430	-	-	13333	813	14146
M Aman	4312	9145	-	-	10137	11210	-	-	13457	21346	34803
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	1003	-	-	-	41660	23693	-	-	1003	65353	66356
Rabi											
L Boro	-	-	-	851	-	-	-	8623	851	8623	9474
M Boro	5165	39643	99659	40765	-	-	-	-	185232	-	185232
M Wheat	722	2201	471	-	1359	16690	6671	14929	3394	39649	43043
Potato	324	92	-	-	1914	2819	3842	-	416	8574	8991
Pulses	91	1097	411	-	3145	17706	17083	7421	1599	45356	46955
Oilseeds	425	3148	647	42	3370	9604	15157	9309	4262	37441	41703
Spices	137	855	-	-	1047	1486	717	-	992	3250	4242
Minor crops	49	552	26	-	3553	18630	4036	-	627	26219	26846
Orchards	-	-	-	-	8631	-	-	-	-	8631	8631
Total	14043	75932	104305	41658	89340	139265	144656	92805	235939	466067	702006

SW8	IRRIGATED				NON-IRRIGATED				Total		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	40290	13122	3244	-	-	56656	56656
M Aus	24486	26269	-	-	1990	-	-	-	50754	1990	52745
B Aman	-	-	-	-	-	2026	11869	4026	-	17921	17921
L T Aman	14481	63137	2792	-	34689	41467	451	-	80410	76607	157018
M Aman	108067	62980	-	-	31751	13852	-	-	171047	45603	216650
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	25947	6416	-	-	13135	2023	-	-	32364	15159	47522
Rabi											
L Boro	-	-	-	2430	-	-	146	1045	2430	1191	3621
M Boro	104475	154793	50415	3820	24	-	-	-	313503	24	313527
M Wheat	34445	31518	5070	-	4649	7460	2853	589	71033	15550	86583
Potato	3083	7091	720	-	55	299	1	0	10894	356	11250
Pulses	3001	2513	2011	0	19408	4690	2340	315	7525	26753	34278
Oilseeds	6613	12500	1599	0	14064	10873	2783	217	20712	27937	48649
Spices	452	393	-	-	516	232	-	-	845	748	1593
Minor crops	11383	23641	750	-	1711	1684	-	-	35775	3394	39169
Orchards	41	-	-	-	3028	-	-	-	41	3028	3069
Total	336475	391250	63358	6250	165309	97728	23688	6192	797333	292917	1090250

NUTRIENT COMPOSITION : ENERGY PER PERSON (Kcal/Person)

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SW9	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	32494	13849	10024	-	-	56368	56368
M Aus	20108	29065	-	-	158	-	-	-	49173	158	49331
B Aman	-	-	-	-	-	303	19602	9529	-	29434	29434
L T Aman	7506	45154	3319	-	50963	37129	2341	-	55979	90432	146411
M Aman	56703	41017	-	-	42549	16570	-	-	97720	59120	156840
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	1482	431	-	-	10375	397	-	-	1913	10772	12685
Rabi											
L Boro	-	-	-	567	-	-	43	521	567	563	1130
M Boro	51105	95717	57294	7887	-	-	-	-	212003	-	212003
M Wheat	24893	28456	8021	-	2691	3844	1949	316	61370	8799	70169
Potato	2242	7187	854	-	25	55	98	-	10284	177	10461
Pulses	799	1152	1730	-	14402	1743	5240	3613	3681	24998	28678
Oilseeds	6706	9477	2020	-	12122	1707	5334	936	18204	20099	38303
Spices	92	28	-	-	1217	390	147	-	119	1754	1873
Minor crops	8736	23769	1323	-	520	506	16	-	33829	1042	34871
Orchards	-	-	-	-	1603	-	-	-	-	1603	1603
Total	180373	281454	74562	8453	169118	76494	44793	14914	544842	305320	850161

SW10	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	21905	21146	21877	-	-	64928	64928
M Aus	8390	5791	-	-	735	92	-	-	14181	827	15007
B Aman	-	-	-	-	-	5572	65391	16527	-	87490	87490
L T Aman	2982	7889	1460	-	18786	48821	14685	-	12330	82292	94623
M Aman	15620	10462	-	-	24691	16960	-	-	26082	41650	67732
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	4872	2051	-	-	17281	7959	-	-	6924	25240	32164
Rabi											
L Boro	-	-	-	5115	-	-	28	11993	5115	12022	17137
M Boro	11044	16349	25715	10345	-	-	-	-	63452	-	63452
M Wheat	10236	7053	2972	-	942	1810	984	187	20261	3923	24185
Potato	310	317	214	-	1894	50	7414	-	841	9358	10199
Pulses	330	286	109	-	5555	4986	13827	2638	725	27006	27731
Oilseeds	1429	3239	1378	-	9458	13353	26146	5386	6046	54342	60388
Spices	83	129	-	-	187	314	6	-	211	507	718
Minor crops	820	4182	414	-	1017	2878	1247	-	5416	5142	10558
Orchards	-	-	-	-	5078	-	-	-	-	5078	5078
Total	56116	57748	32261	15460	107529	123939	151605	36732	161585	419805	581390

NUTRIENT COMPOSITION : ENERGY PER PERSON (Kcal/Person)

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SW11	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	2315	9540	241	-	-	12097	12097
M Aus	1951	15637	-	-	-	-	-	-	17588	-	17588
B Aman	-	-	-	-	-	-	4924	153	-	5077	5077
L T Aman	981	37854	200	-	34800	299246	2065	-	39034	336112	375146
M Aman	9273	46912	-	-	20047	72089	-	-	56185	92136	148321
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	616	-	-	-	4200	-	-	-	616	4200	4816
Rabi											
L Boro	-	-	-	2138	-	-	1583	-	2138	1583	3721
M Boro	8995	109948	3838	428	-	-	-	-	123209	-	123209
M Wheat	2775	16293	195	-	88	124	3	4	19262	219	19481
Potato	79	1788	51	-	-	4097	-	-	1919	4097	6016
Pulses	2	2	46	-	2731	16542	406	50	50	19729	19780
Oilseeds	257	394	71	-	5184	39019	949	82	722	45234	45956
Spices	31	-	-	-	523	2588	0	-	31	3111	3142
Minor crops	362	563	23	-	827	12302	-	-	949	13129	14078
Orchards	-	-	-	-	7082	-	-	-	-	7082	7082
Total	25320	229392	4425	2566	77799	455548	10172	290	261703	543808	805511

SW12	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	3304	4080	1749	-	-	9133	9133
M Aus	1936	4678	-	-	-	-	-	-	6614	-	6614
B Aman	-	-	-	-	-	23	4053	1516	-	5593	5593
L T Aman	790	7124	284	-	13239	79042	896	-	8199	93178	101377
M Aman	3754	8851	-	-	8616	19844	-	-	12605	28459	41064
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	99	12	-	-	2087	34	-	-	111	2121	2231
Rabi											
L Boro	-	-	-	321	-	-	399	45	321	444	766
M Boro	2846	17467	4632	754	-	-	-	-	25700	-	25700
M Wheat	1916	4354	871	-	-	-	313	35	7140	348	7488
Potato	82	505	50	-	3	260	13	-	637	276	913
Pulses	98	154	137	-	1182	4367	975	621	388	7145	7533
Oilseeds	515	559	180	-	3226	15144	1692	238	1254	20301	21555
Spices	10	1	-	-	153	360	20	-	10	533	543
Minor crops	456	1406	94	-	74	823	2	-	1956	900	2856
Orchards	-	-	-	-	620	-	-	-	-	620	620
Total	12501	45111	6249	1076	32503	123977	10113	2456	64936	169049	233985

NUTRIENT COMPOSITION : ENERGY PER PERSON (Kcal/Person)

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SW13	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	9192	33475	21792	-	-	64459	64459
M Aus	2247	2516	-	-	527	823	-	-	4763	1350	6112
B Aman	-	-	-	-	-	10186	42079	28474	-	80739	80739
L T Aman	671	5348	1148	-	10465	112643	6033	198	7167	129339	136507
M Aman	4661	7408	-	-	19221	44092	-	147	12070	63460	75530
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	777	729	-	-	16449	15815	-	-	1506	32265	33771
Rabi											
L Boro	-	3	1280	2467	-	-	1	5257	3751	5258	9009
M Boro	3155	13893	19756	10393	-	-	-	-	47197	-	47197
M Wheat	2693	2679	897	-	444	8613	168	6903	6269	16128	22397
Potato	72	227	74	-	4375	10666	7533	-	373	22574	22947
Pulses	2	7	-	-	2006	20759	9965	4031	9	36761	36770
Oilseeds	520	1726	492	-	4293	30761	18179	7298	2739	60531	63270
Spices	6	22	-	-	102	372	44	-	28	517	545
Minor crops	144	1973	130	-	1736	9426	2224	-	2247	13386	15632
Orchards	-	-	-	-	17447	-	-	-	-	17447	17447
Total	14949	36531	23778	12860	86258	297630	108016	52309	88118	544213	632331

SW14	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	2496	12154	1052	-	-	15701	15701
M Aus	300	2077	-	-	-	-	-	-	2377	-	2377
B Aman	-	-	-	-	-	892	7602	680	-	9173	9173
L T Aman	140	4930	41	-	36351	321282	2781	17	5111	360432	365543
M Aman	1095	6228	-	-	21446	78295	-	13	7323	99753	107076
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	117	32	-	-	5092	1037	-	-	149	6129	6278
Rabi											
L Boro	-	-	50	385	-	-	1648	328	434	1976	2411
M Boro	1032	14334	680	194	-	-	-	-	16240	-	16240
M Wheat	391	2158	49	-	-	367	-	-	2597	367	2965
Potato	7	226	11	-	279	7210	556	-	243	8046	8289
Pulses	-	-	-	-	2596	18847	985	139	-	22567	22567
Oilseeds	16	33	18	-	5307	41895	1931	236	66	49368	49434
Spices	2	2	-	-	213	1118	-	-	4	1331	1334
Minor crops	29	169	12	-	1314	19965	93	-	210	21372	21582
Orchards	-	-	-	-	12284	-	-	-	-	12284	12284
Total	3128	30188	860	578	87377	503061	16648	1413	34755	608499	643254

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SW Total	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	351925	370144	162768	-	-	884837	884837
M Aus	154964	314633	-	-	11118	27772	-	-	469597	38889	508486
B Aman	-	-	-	-	-	74567	412891	175210	-	662668	662668
L T Aman	61777	422147	19392	-	229026	996081	32326	216	503316	1257649	1760965
M Aman	593271	413287	-	-	308081	343633	-	160	1006559	651873	1658432
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	270799	59251	-	-	369855	165715	-	-	330050	535570	865620
Rabi											
L Boro	-	3	1330	26410	-	-	3849	37969	27743	41818	69561
M Boro	531355	901214	380068	81733	9206	-	-	-	1894370	9206	1903576
M Wheat	218401	294915	58253	-	23442	119021	50831	28745	571570	222039	793609
Potato	6906	24396	2704	-	16255	26299	21876	125	34006	64555	98561
Pulses	10065	27542	5634	7	103451	195111	95373	23567	43248	417502	460750
Oilseeds	26194	62168	7309	60	91561	233503	106712	27648	95731	459423	555154
Spices	5589	4865	-	-	7933	16093	2326	-	10454	26352	36806
Minor crops	61411	116530	3960	-	20952	114098	12832	-	181901	147881	329783
Orchards	8057	-	-	-	91068	-	-	-	8057	91068	99125
Total	1948792	2640951	478650	108211	1633870	2682036	901785	293638	5176603	5511330	10687933

SW Avg	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	25137	26439	11626	-	-	63203	63203
M Aus	11069	22474	-	-	794	1984	-	-	33543	2778	36320
B Aman	-	-	-	-	-	5326	29492	12515	-	47333	47333
L T Aman	4413	30153	1385	-	16359	71149	2309	15	35951	89832	125783
M Aman	42377	29521	-	-	22006	24545	-	11	71897	46562	118459
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	19343	4232	-	-	26418	11837	-	-	23575	38255	61830
Rabi											
L Boro	-	0	95	1886	-	-	275	2712	1982	2987	4969
M Boro	37954	64372	27148	5838	658	-	-	-	135312	658	135970
M Wheat	15600	21065	4161	-	1674	8501	3631	2053	40826	15860	56686
Potato	493	1743	193	-	1161	1879	1563	9	2429	4611	7040
Pulses	719	1967	402	1	7389	13937	6812	1683	3089	29822	32911
Oilseeds	1871	4441	522	4	6540	16679	7622	1975	6838	32816	39654
Spices	399	347	-	-	567	1150	166	-	747	1882	2629
Minor crops	4387	8324	283	-	1497	8150	917	-	12993	10563	23556
Orchards	576	-	-	-	6505	-	-	-	576	6505	7080
Total	139199	188639	34189	7729	116705	191574	64413	20974	369757	393666	763424

NUTRIENT COMPOSITION : ENERGY PER PERSON (Kcal/Person)

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SC1	IRRIGATED				NON-IRRIGATED				Totals		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	14996	41663	29711	-	-	86370	86370
M Aus	2367	15881	-	-	1911	2401	-	-	18248	4312	22559
B Aman	-	-	-	-	-	5786	55215	8261	-	69262	69262
L T Aman	3	11523	2889	-	848	117	-	-	14415	965	15380
M Aman	5250	7980	-	-	8710	4481	-	-	13229	13191	26420
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	2187	-	-	-	60828	36184	-	-	2187	97012	99199
Rabi											
L Boro	-	-	-	1601	-	-	-	9769	1601	9769	11371
M Boro	6111	39514	93828	6073	-	-	-	-	145526	-	145526
M Wheat	-	-	-	-	1372	16875	15144	211	-	33602	33602
Potato	201	-	-	-	33	3152	2868	-	201	6053	6254
Pulses	175	2416	955	-	3920	27207	18376	1838	3547	51341	54888
Oilseeds	536	3306	1849	121	4880	22905	17211	999	5813	45994	51807
Spices	440	2874	-	-	2459	2647	1588	-	3315	6694	10009
Minor crops	-	-	-	-	3784	22012	2868	-	-	28663	28663
Orchards	-	-	-	-	8858	-	-	-	-	8858	8858
Total	17271	83494	99522	7796	112598	185430	142980	21078	208082	462086	670168

SC2	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	12818	51045	7208	-	-	71071	71071
M Aus	607	4074	-	-	4620	12714	-	-	4681	17335	22016
B Aman	-	-	-	-	-	26697	61869	10233	-	98799	98799
L T Aman	603	22305	1171	-	7169	50936	1888	-	24079	59993	84072
M Aman	8379	28614	-	-	6048	6883	-	-	36992	12931	49923
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	561	-	-	-	39970	36610	-	-	561	76581	77142
Rabi											
L Boro	-	-	-	540	-	-	-	7140	540	7140	7681
M Boro	14613	114864	38042	4588	-	-	-	-	172107	-	172107
M Wheat	-	-	-	-	1593	16831	10676	432	-	29533	29533
Potato	42	-	-	-	1130	4769	702	-	42	6601	6643
Pulses	735	621	246	-	8014	19956	17512	1340	1602	46823	48425
Oilseeds	1215	17676	590	25	3626	4529	25919	734	19506	34808	54314
Spices	23	151	-	-	435	1055	189	-	174	1679	1853
Minor crops	-	-	-	-	4196	25317	2592	-	-	32105	32105
Orchards	-	-	-	-	13193	-	-	-	-	13193	13193
Total	26779	188304	40049	5154	102812	257343	128556	19879	260286	508591	768877

NUTRIENT COMPOSITION : ENERGY PER PERSON (Kcal/Person)

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SC3	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	7980	39011	15227	-	-	62218	62218
M Aus	501	3359	-	-	3436	8053	-	-	3859	11489	15349
B Aman	-	-	-	-	-	6893	42576	24585	-	74053	74053
L T Aman	575	24372	3616	-	3241	23302	79	-	28563	26622	55184
M Aman	7811	31805	-	-	12289	16649	-	-	39616	28938	68554
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	463	-	-	-	29767	28060	-	-	463	57827	58289
Rabi											
L Boro	-	-	-	8191	-	-	-	3373	8191	3373	11563
M Boro	13724	127081	117433	1379	-	-	-	-	259617	-	259617
M Wheat	-	-	-	-	4267	4786	2268	18	-	11339	11339
Potato	91	-	-	-	1552	2501	1764	-	91	5818	5909
Pulses	81	512	202	-	2036	12258	7597	1422	795	23313	24107
Oilseeds	1367	19824	331	21	1330	7826	7158	416	21542	16730	38273
Spices	19	124	-	-	279	770	206	-	143	1256	1399
Minor crops	-	-	-	-	2132	13316	1844	-	-	17292	17292
Orchards	-	-	-	-	10133	-	-	-	-	10133	10133
Total	24631	207077	121582	9590	78443	163425	78719	29813	362880	350400	713280

SC4	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	10212	50183	32997	-	-	93391	93391
M Aus	1	12	-	-	3508	7739	-	-	13	11247	11260
B Aman	-	-	-	-	-	5955	59353	56061	-	121369	121369
L T Aman	387	15474	2877	-	4184	31730	13	2	18737	35929	54667
M Aman	3595	16576	-	-	16126	23571	-	1	20171	39699	59870
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	2	4	-	-	31905	30212	-	-	6	62117	62123
Rabi											
L Boro	-	-	17	4124	-	-	-	5062	4141	5062	9203
M Boro	5305	52689	59082	12390	-	-	-	-	129467	-	129467
M Wheat	0	10	-	-	5011	7605	-	9019	10	21636	21646
Potato	0	1	0	-	2174	2550	2520	-	1	7244	7245
Pulses	-	-	-	-	2090	12618	10948	5377	-	31032	31032
Oilseeds	723	10315	0	-	1711	6956	10629	5790	11038	25086	36124
Spices	0	0	-	-	293	877	232	-	0	1402	1403
Minor crops	0	6	0	-	2160	12711	2520	-	6	17391	17397
Orchards	-	-	-	-	9664	-	-	-	-	9664	9664
Total	10013	95087	61976	16514	89039	192708	119211	81312	183590	482270	665860

NUTRIENT COMPOSITION : ENERGY PER PERSON (Kcal/Person)

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SC5	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	6153	16864	2233	-	-	25250	25250
M Aus	20425	8794	-	-	1277	2304	-	-	29218	3582	32800
B Aman	-	-	-	-	-	1084	5737	3967	-	10788	10788
L T Aman	9592	44981	4633	-	7452	32088	4	0	59206	39543	98749
M Aman	123150	50211	-	-	8722	16785	-	0	173361	25507	198868
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	96	8	-	-	8520	5797	-	-	104	14317	14421
Rabi											
L Boro	-	15028	39	9703	-	-	-	329	24770	329	25098
M Boro	146592	116847	95146	25	-	-	-	-	358611	-	358611
M Wheat	8009	426	-	-	689	861	6	0	8435	1556	9990
Potato	22567	11178	1	-	294	575	238	-	33746	1107	34853
Pulses	58	90	-	-	1215	5428	809	198	148	7650	7798
Oilseeds	12427	22721	2	-	570	5491	772	52	35150	6886	42036
Spices	1194	8	-	-	90	288	27	-	1202	405	1607
Minor crops	716	1064	1	-	863	5332	239	-	1780	6435	8215
Orchards	-	-	-	-	3533	-	-	-	-	3533	3533
Total	344826	271355	99822	9728	39378	92897	10065	4547	725731	146887	872618

SC6	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	15455	57991	1524	-	-	74970	74970
M Aus	1425	446	-	-	4424	11752	-	-	1871	16175	18046
B Aman	-	-	-	-	-	25509	51253	10448	-	87210	87210
L T Aman	1308	22853	669	-	14437	86721	2413	-	24829	103570	128399
M Aman	14643	25041	-	-	10691	17214	-	-	39684	27905	67590
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	13	-	-	-	31513	31446	-	-	13	62959	62972
Rabi											
L Boro	-	1071	12	528	-	-	-	4949	1611	4949	6560
M Boro	19125	76026	13722	2141	-	-	-	-	111014	-	111014
M Wheat	591	14	-	-	1622	12863	6990	425	604	21900	22504
Potato	414	192	-	-	1265	4143	162	-	606	5570	6176
Pulses	590	3	0	-	7969	17075	13444	1021	594	39509	40103
Oilseeds	1725	14990	168	-	3020	4331	22008	573	16883	29932	46816
Spices	85	0	-	-	377	1111	125	-	85	1614	1699
Minor crops	3	9	1	-	3945	23876	2023	-	12	29843	29856
Orchards	-	-	-	-	13158	-	-	-	-	13158	13158
Total	39921	140645	14573	2669	107875	294031	99942	17417	197808	519265	717073

NUTRIENT COMPOSITION : ENERGY PER PERSON (Kcal/Person)

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SC7	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	6469	15893	-	-	-	22362	22362
M Aus	34852	19972	-	-	1065	1716	-	-	54824	2781	57605
B Aman	-	-	-	-	-	331	89	12	-	432	432
L T Aman	14844	31310	106	-	10500	44658	216	-	46261	55375	101635
M Aman	202635	34893	-	-	8417	19844	-	-	237528	28261	265789
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	961	-	-	-	5813	2271	-	-	961	8085	9046
Rabi											
L Boro	-	24962	631	-	-	-	-	7	25593	7	25600
M Boro	236296	33309	935	58	-	-	-	-	270598	-	270598
M Wheat	14942	2130	-	-	2	1240	11	1	17072	1253	18325
Potato	9644	5202	-	-	132	575	-	-	14845	707	15552
Pulses	228	442	18	-	1165	5861	29	1	688	7057	7745
Oilseeds	17453	1130	5	-	592	5713	37	1	18588	6342	24931
Spices	2007	36	-	-	71	250	0	-	2043	322	2365
Minor crops	793	1410	26	-	729	4782	3	-	2229	5514	7743
Orchards	-	-	-	-	3340	-	-	-	-	3340	3340
Total	534654	154795	1721	58	38295	103135	385	22	691229	141837	833066

SC8	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	17605	52013	-	-	-	69618	69618
M Aus	2317	1790	-	-	1242	4242	-	-	4107	5484	9591
B Aman	-	-	-	-	-	368	1389	115	-	1872	1872
L T Aman	1839	12252	310	-	62576	296593	10545	-	14401	369714	384115
M Aman	42506	11946	-	-	7803	10722	-	-	54452	18525	72978
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	2021	-	-	-	5578	402	-	-	2021	5980	8001
Rabi											
L Boro	-	1244	1267	-	-	-	-	46	2511	46	2556
M Boro	32332	22387	1538	24	-	-	-	-	56280	-	56280
M Wheat	5514	2191	-	-	17	187	104	6	7705	314	8019
Potato	-	113	-	-	2276	58	-	-	113	2334	2447
Pulses	151	471	57	-	3626	30522	730	11	679	34889	35568
Oilseeds	389	1565	4	-	4612	19554	736	12	1959	24914	26872
Spices	208	28	-	-	134	902	17	-	236	1052	1288
Minor crops	340	1238	68	-	2308	15813	28	-	1645	18149	19794
Orchards	-	-	-	-	13721	-	-	-	-	13721	13721
Total	87617	55224	3244	24	121497	431377	13548	190	146109	566612	712720

NUTRIENT COMPOSITION : ENERGY PER PERSON (Kcal/Person)

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SC9	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	19965	72609	-	-	-	92573	92573
M Aus	1121	1801	-	-	1866	5546	-	-	2922	7412	10334
B Aman	-	-	-	-	-	804	675	-	-	1479	1479
L T Aman	746	6372	118	-	74736	358535	10022	-	7235	443294	450529
M Aman	17290	6247	-	-	12986	47790	-	-	23537	60775	84312
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	832	-	-	-	6015	-	-	-	832	6015	6847
Rabi											
L Boro	-	503	495	-	-	-	-	-	998	-	998
M Boro	12942	10303	562	-	-	-	-	-	23807	-	23807
M Wheat	2220	1056	-	-	-	6549	-	-	3276	6549	9824
Potato	23	138	-	-	2609	3050	-	-	161	5659	5820
Pulses	70	199	20	-	3571	35488	480	-	289	39539	39828
Oilseeds	149	536	-	-	4486	23166	235	-	685	27887	28572
Spices	85	15	-	-	175	1196	14	-	99	1386	1485
Minor crops	210	591	26	-	2155	17851	-	-	827	20006	20833
Orchards	-	-	-	-	20188	-	-	-	-	20188	20188
Total	35688	27760	1220	-	148751	572584	11426	-	64668	732761	797429

SC10	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	15373	81890	-	-	-	97263	97263
M Aus	2677	7784	-	-	2651	5968	-	-	10461	8619	19080
B Aman	-	-	-	-	-	2347	207	-	-	2554	2554
L T Aman	1004	14170	61	-	59590	292553	2272	-	15235	354415	369650
M Aman	19109	14249	-	-	20997	114960	-	-	33358	135956	169314
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	709	-	-	-	6723	1074	-	-	709	7797	8506
Rabi											
L Boro	-	833	268	-	-	-	-	-	1101	-	1101
M Boro	13201	16710	292	-	-	-	-	-	30204	-	30204
M Wheat	1976	1767	-	-	-	18544	-	-	3744	18544	22288
Potato	1141	2228	-	-	1773	8637	-	-	3369	10410	13779
Pulses	202	402	13	-	3396	43933	139	-	617	47468	48085
Oilseeds	868	856	-	-	2464	23538	54	-	1723	26055	27778
Spices	123	31	-	-	203	1260	3	-	153	1467	1620
Minor crops	1728	2907	41	-	815	13855	-	-	4676	14670	19346
Orchards	-	-	-	-	24298	-	-	-	-	24298	24298
Total	42737	61937	676	-	138282	608559	2675	-	105350	749516	854866

NUTRIENT COMPOSITION : ENERGY PER PERSON (Kcal/Person)

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SC11	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	11096	47196	-	-	-	58291	58291
M Aus	23520	37680	-	-	2133	4007	-	-	61200	6140	67340
B Aman	-	-	-	-	-	1237	31	-	-	1268	1268
L T Aman	8313	50596	11	-	27735	131008	52	-	58920	158795	217715
M Aman	117913	52642	-	-	15516	64437	-	-	170556	79952	250508
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	1197	-	-	-	7483	2467	-	-	1197	9950	11147
Rabi											
L Boro	-	13552	138	-	-	-	-	-	13689	-	13689
M Boro	131199	72921	82	-	-	-	-	-	204203	-	204203
M Wheat	8738	5033	-	-	-	8776	-	-	13770	8776	22546
Potato	4694	4196	-	-	619	4088	-	-	8890	4707	13597
Pulses	639	1116	2	-	2146	20452	3	-	1757	22602	24358
Oilseeds	9591	1750	-	-	968	11053	1	-	11340	12022	23363
Spices	1112	95	-	-	135	656	0	-	1206	791	1997
Minor crops	1900	2716	2	-	762	8444	-	-	4619	9206	13825
Orchards	-	-	-	-	11669	-	-	-	-	11669	11669
Total	308816	242296	236	-	80261	303820	87	-	551348	384168	935516

SC12	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	14243	54487	19	-	-	68748	68748
M Aus	2506	4236	-	-	1575	4165	-	-	6742	5740	12482
B Aman	-	-	-	-	-	1008	498	10	-	1516	1516
L T Aman	1475	12287	192	-	51489	248309	5843	4	13953	305645	319599
M Aman	31446	12202	-	-	11931	47296	-	3	43648	59229	102877
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	1359	14	-	-	5482	786	-	-	1373	6268	7641
Rabi											
L Boro	-	1105	813	34	-	-	-	0	1952	0	1953
M Boro	23360	18412	904	3	-	-	-	-	42679	-	42679
M Wheat	3796	1911	-	-	1	6597	-	-	5707	6597	12304
Potato	211	392	0	-	1750	3273	0	-	603	5023	5626
Pulses	169	448	39	-	3241	32682	382	1	656	36306	36962
Oilseeds	521	705	1	-	2218	13478	164	1	1227	15861	17088
Spices	173	28	-	-	139	888	8	-	201	1035	1236
Minor crops	415	1066	42	-	1442	12741	0	-	1522	14183	15706
Orchards	-	-	-	-	15453	-	-	-	-	15453	15453
Total	65430	52805	1991	37	108965	425708	6915	20	120264	541607	661870

NUTRIENT COMPOSITION : ENERGY PER PERSON (Kcal/Person)

(Nutrient Composition Energy File : SWCEN-3D.wk1)

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SC13	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	27438	80759	-	-	-	108197	108197
M Aus	1257	971	-	-	1884	6469	-	-	2229	8353	10581
B Aman	-	-	-	-	-	-	1078	-	-	1078	1078
L T Aman	992	6459	165	-	98075	464341	16507	-	7615	578924	586539
M Aman	23012	6275	-	-	12169	16714	-	-	29287	28883	58170
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	1097	-	-	-	8184	-	-	-	1097	8184	9281
Rabi											
L Boro	-	675	688	-	-	-	-	-	1363	-	1363
M Boro	17493	11730	784	-	-	-	-	-	30007	-	30007
M Wheat	2992	1189	-	-	-	-	-	-	4181	-	4181
Potato	-	282	-	-	3550	-	-	-	282	3550	3832
Pulses	74	247	30	-	5356	45979	852	-	351	52188	52538
Oilseeds	199	659	-	-	7154	30709	414	-	858	38277	39135
Spices	113	15	-	-	203	1395	24	-	128	1622	1750
Minor crops	851	3100	169	-	3550	24378	-	-	4121	27928	32048
Orchards	-	-	-	-	21298	-	-	-	-	21298	21298
Total	48081	31603	1835	-	188861	670744	18874	-	81518	878480	959998

SC Total	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	179801	661604	88918	-	-	930323	930323
M Aus	93577	106798	-	-	31591	77078	-	-	200375	108668	309043
B Aman	-	-	-	-	-	78018	279970	113690	-	471679	471679
L T Aman	41679	274953	16819	-	422032	2060891	49855	6	333451	2532784	2866235
M Aman	616739	298681	-	-	152405	407345	-	4	915420	559754	1475174
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	11498	26	-	-	247781	175309	-	-	11524	423090	434614
Rabi											
L Boro	-	58973	4366	24721	-	-	-	30675	88061	30675	118736
M Boro	672295	712793	422350	26681	-	-	-	-	1834119	-	1834119
M Wheat	48778	15726	-	-	14573	101715	35197	10113	64503	161599	226102
Potato	39028	23921	2	-	19156	37371	8254	-	62951	64782	127732
Pulses	3172	6968	1583	-	47744	309459	71302	11211	11723	439715	451438
Oilseeds	47162	96032	2950	167	37632	179248	85339	8579	146312	310797	457110
Spices	5582	3404	-	-	4995	13295	2433	-	8986	20724	29710
Minor crops	6955	14107	376	-	28841	200428	12116	-	21438	241385	262823
Orchards	-	-	-	-	168505	-	-	-	-	168505	168505
Total	1586464	1612382	448446	51570	1355056	4301761	633385	174278	3698862	6464479	10163341

NUTRIENT COMPOSITION : ENERGY PER PERSON (Kcal/Person)

(Nutrient Composition Energy File : SWCEN-3D.wk1)

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TOTAL	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	531726	1031748	251686	-	-	1815160	1815160
M Aus	248541	421431	-	-	42708	104849	-	-	669972	147558	817530
B Aman	-	-	-	-	-	152585	692862	288900	-	1134346	1134346
L T Aman	103456	697100	36210	-	651058	3056973	82180	222	836766	3790433	4627199
M Aman	1210010	711968	-	-	460486	750977	-	164	1921979	1211627	3133606
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	282297	59277	-	-	617635	341025	-	-	341574	958660	1300234
Rabi											
L Boro	-	58977	5696	51131	-	-	3849	68644	115804	72493	188297
M Boro	1203650	1614007	802419	108414	9206	-	-	-	3728490	9206	3737696
M Wheat	267179	310641	58253	-	38015	220736	86029	38858	636074	383637	1019711
Potato	45934	48317	2706	-	35411	63670	30130	125	96957	129336	226293
Pulses	13237	34510	7217	7	151194	504570	166675	34778	54971	857218	912188
Oilseeds	73356	158200	10259	228	129192	412751	192051	36226	242043	770220	1012263
Spices	11172	8269	-	-	12928	29389	4759	-	19440	47076	66516
Minor crops	68366	130636	4336	-	49793	314525	24949	-	203339	389266	592606
Orchards	8057	-	-	-	259573	-	-	-	8057	259573	267630
Total	3535256	4253333	927096	159781	2988926	6983797	1535170	467916	8875465	11975809	20851274

SC Avg	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	13831	50893	6840	-	-	71563	71563
M Aus	7198	8215	-	-	2430	5929	-	-	15413	8359	23773
B Aman	-	-	-	-	-	6001	21536	8745	-	36283	36283
L T Aman	3206	21150	1294	-	32464	158530	3835	0	25650	194830	220480
M Aman	47441	22975	-	-	11723	31334	-	0	70417	43058	113475
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	884	2	-	-	19060	13485	-	-	886	32545	33432
Rabi											
L Boro	-	4536	336	1902	-	-	-	2360	6774	2360	9134
M Boro	51715	54830	32488	2052	-	-	-	-	141086	-	141086
M Wheat	3752	1210	-	-	1121	7824	2707	778	4962	12431	17392
Potato	3002	1840	0	-	1474	2875	635	-	4842	4983	9826
Pulses	244	536	122	-	3673	23805	5485	862	902	33824	34726
Oilseeds	3628	7387	227	13	2895	13788	6565	660	11255	23907	35162
Spices	429	262	-	-	384	1023	187	-	691	1594	2285
Minor crops	535	1085	29	-	2219	15418	932	-	1649	18568	20217
Orchards	-	-	-	-	12962	-	-	-	-	12962	12962
Total	122036	124029	34496	3967	104235	330905	48722	13406	284528	497268	781795

NUTRIENT COMPOSITION : CARBOHYDRATE PER PERSON (Kg/Person)
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SW1	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	16.35	12.78	6.11	-	-	35.24	35.24
M Aus	5.35	9.89	-	-	-	-	-	-	15.25	-	15.25
B Aman	-	-	-	-	-	0.04	6.11	0.65	-	6.81	6.81
L T Aman	0.12	12.15	0.19	-	0.01	0.05	-	-	12.46	0.06	12.52
M Aman	15.64	9.16	-	-	5.55	1.39	-	-	24.79	6.94	31.74
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	6.90	2.70	-	-	2.34	2.98	-	-	9.60	5.32	14.91
Rabi											
L Boro	-	-	-	0.33	-	-	-	0.80	0.33	0.80	1.13
M Boro	3.68	11.17	1.56	0.01	2.00	-	-	-	16.42	2.00	18.42
M Wheat	9.05	10.43	1.82	-	0.38	3.14	-	0.25	21.30	3.77	25.07
Potato	-	0.47	0.10	-	0.25	-	0.11	0.03	0.57	0.38	0.95
Pulses	0.51	0.10	0.04	0.00	1.48	2.51	1.07	0.13	0.65	5.19	5.84
Oilseeds	0.12	0.26	-	0.00	0.33	0.12	0.16	0.05	0.38	0.66	1.04
Spices	0.18	0.02	-	-	0.22	0.46	-	-	0.20	0.68	0.88
Minor crops	3.24	0.40	-	-	-	2.57	-	-	3.63	2.57	6.20
Orchards	1.82	-	-	-	0.48	-	-	-	1.82	0.48	2.30
Total	46.60	56.75	3.72	0.34	29.38	26.04	13.57	1.91	107.41	70.89	178.30

SW2	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	1.13	2.06	1.18	-	-	4.38	4.38
M Aus	6.57	17.03	-	-	0.00	0.03	-	-	23.61	0.03	23.64
B Aman	-	-	-	-	-	0.24	0.74	0.24	-	1.22	1.22
L T Aman	3.82	19.08	0.35	-	0.04	0.27	0.00	-	23.25	0.31	23.57
M Aman	45.82	17.62	-	-	1.16	1.26	-	-	63.43	2.42	65.85
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	18.50	2.63	-	-	1.68	0.51	-	-	21.13	2.19	23.33
Rabi											
L Boro	-	-	-	0.31	-	-	-	0.01	0.31	0.01	0.32
M Boro	49.35	34.64	4.37	0.20	0.00	-	-	-	88.56	0.00	88.56
M Wheat	9.08	8.69	2.27	-	0.01	0.70	0.03	0.00	20.05	0.74	20.79
Potato	-	0.02	0.00	-	0.18	0.00	0.00	0.00	0.02	0.18	0.20
Pulses	0.01	2.96	0.00	0.00	0.09	0.64	0.28	0.03	2.97	1.05	4.02
Oilseeds	0.19	0.82	0.00	0.00	0.03	0.03	0.06	0.00	1.01	0.12	1.13
Spices	0.69	0.48	-	-	0.00	0.01	0.00	-	1.17	0.01	1.18
Minor crops	3.14	6.27	0.00	-	0.01	0.13	0.00	-	9.42	0.14	9.56
Orchards	0.01	-	-	-	0.23	-	-	-	0.01	0.23	0.24
Total	137.19	110.23	7.00	0.52	4.58	5.88	2.30	0.28	254.94	13.04	267.97

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NUTRIENT COMPOSITION : CARBOHYDRATE PER PERSON (Kg/Person)

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(Nutrient Composition Carbohydrate File : SWCCA-3F.wk1)

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SW3	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	6.34	9.26	1.67	-	-	17.27	17.27
M Aus	1.79	6.00	-	-	0.33	1.80	-	-	7.79	2.13	9.92
B Aman	-	-	-	-	-	2.98	10.24	3.37	-	16.58	16.58
L T Aman	0.14	4.55	0.25	-	0.15	1.05	-	-	4.94	1.20	6.13
M Aman	3.59	4.63	-	-	3.21	3.31	-	-	8.22	6.52	14.74
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.18	0.01	-	-	7.38	3.34	-	-	0.19	10.72	10.91
Rabi											
L Boro	-	-	-	0.46	-	-	-	0.37	0.46	0.37	0.83
M Boro	3.30	12.90	6.18	0.09	-	-	-	-	22.48	-	22.48
M Wheat	1.71	5.13	1.10	-	0.62	3.70	1.82	-	7.94	6.13	14.07
Potato	0.00	0.04	-	-	0.21	0.02	0.02	-	0.04	0.25	0.29
Pulses	0.03	0.16	0.01	-	1.08	4.44	1.75	0.14	0.21	7.42	7.62
Oilseeds	0.01	0.06	0.00	0.00	0.18	0.76	0.33	0.02	0.07	1.30	1.37
Spices	0.03	0.09	-	-	0.21	0.56	0.12	-	0.12	0.90	1.02
Minor crops	0.03	0.25	0.01	-	0.43	1.71	0.25	-	0.29	2.40	2.69
Orchards	-	-	-	-	1.28	-	-	-	-	1.28	1.28
Total	10.82	33.82	7.56	0.55	21.43	32.92	16.22	3.90	52.75	74.46	127.21

SW4	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	10.95	6.16	1.53	-	-	18.64	18.64
M Aus	3.24	4.43	-	-	0.31	-	-	-	7.67	0.31	7.98
B Aman	-	-	-	-	-	1.76	4.20	1.37	-	7.33	7.33
L T Aman	2.76	6.98	0.23	-	5.00	6.62	0.28	-	9.97	11.90	21.87
M Aman	12.62	7.43	-	-	10.12	2.06	-	-	20.04	12.17	32.21
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	3.11	0.72	-	-	5.23	0.75	-	-	3.83	5.97	9.80
Rabi											
L Boro	-	-	-	0.39	-	-	-	0.17	0.39	0.17	0.56
M Boro	12.38	14.35	3.52	0.33	0.03	-	-	-	30.58	0.03	30.62
M Wheat	4.52	5.52	0.56	-	0.38	1.13	2.08	0.65	10.59	4.24	14.84
Potato	0.15	0.66	0.06	-	0.17	0.11	0.00	0.00	0.87	0.28	1.15
Pulses	0.35	0.27	0.13	0.00	3.71	1.78	0.95	0.14	0.75	6.57	7.32
Oilseeds	0.07	0.11	0.02	0.00	0.52	0.60	0.19	0.01	0.20	1.33	1.53
Spices	0.09	0.08	-	-	0.11	0.07	-	-	0.17	0.18	0.35
Minor crops	2.21	3.98	0.13	-	0.29	0.46	-	-	6.31	0.75	7.06
Orchards	0.04	-	-	-	1.00	-	-	-	0.04	1.00	1.03
Total	41.52	44.52	4.66	0.72	37.81	21.48	9.24	2.35	91.43	70.87	162.30

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NUTRIENT COMPOSITION : CARBOHYDRATE PER PERSON (Kg/Person)
(Nutrient Composition Carbohydrate File : SWCCA-3F.wk1)

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SW5	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	8.83	11.38	2.22	-	-	22.43	22.43
M Aus	1.90	4.88	-	-	0.29	1.50	-	-	6.79	1.79	8.58
B Aman	-	-	-	-	-	3.30	11.56	3.82	-	18.68	18.68
L T Aman	0.57	5.67	0.29	-	1.17	3.27	0.40	-	6.53	4.83	11.36
M Aman	4.97	4.94	-	-	5.19	3.95	-	-	9.91	9.15	19.06
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.67	0.13	-	-	7.99	3.28	-	-	0.80	11.27	12.08
Rabi											
L Boro	-	-	-	0.69	-	-	-	0.59	0.69	0.59	1.28
M Boro	4.05	10.30	4.47	0.46	-	-	-	-	19.28	-	19.28
M Wheat	2.30	5.17	1.09	-	0.63	3.64	1.95	0.10	8.55	6.33	14.88
Potato	0.01	0.13	0.01	-	0.48	0.04	0.39	-	0.15	0.92	1.07
Pulses	0.05	0.15	0.01	-	1.49	4.20	1.82	0.18	0.22	7.69	7.91
Oilseeds	0.03	0.07	0.01	-	0.26	0.83	0.42	0.04	0.11	1.55	1.66
Spices	0.04	0.05	-	-	0.17	0.44	0.09	-	0.09	0.70	0.78
Minor crops	0.22	0.97	0.05	-	0.70	2.50	0.40	-	1.24	3.60	4.84
Orchards	-	-	-	-	2.35	-	-	-	-	2.35	2.35
Total	14.80	32.47	5.93	1.16	29.54	38.34	19.25	4.74	54.36	91.87	146.24

SW6	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	6.93	9.87	1.73	-	-	18.52	18.52
M Aus	1.97	6.48	-	-	0.36	2.00	-	-	8.44	2.36	10.80
B Aman	-	-	-	-	-	3.25	11.06	4.25	-	18.57	18.57
L T Aman	0.16	4.96	0.25	-	0.15	1.17	-	-	5.37	1.33	6.70
M Aman	3.86	5.12	-	-	3.53	3.73	-	-	8.98	7.26	16.24
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.13	0.00	-	-	7.83	3.48	-	-	0.13	11.31	11.44
Rabi											
L Boro	-	-	-	0.50	-	-	-	0.32	0.50	0.32	0.82
M Boro	3.48	14.07	6.09	0.49	-	-	-	-	24.14	-	24.14
M Wheat	1.91	5.80	1.24	-	0.68	4.00	1.83	0.17	8.96	6.68	15.64
Potato	-	0.28	-	-	0.51	0.02	0.04	-	0.28	0.57	0.84
Pulses	0.03	0.13	-	-	1.09	4.34	1.69	0.19	0.16	7.31	7.47
Oilseeds	0.01	0.06	-	-	0.19	0.80	0.35	0.04	0.07	1.39	1.46
Spices	0.02	0.05	-	-	0.17	0.49	0.10	-	0.07	0.76	0.82
Minor crops	0.16	1.68	0.08	-	0.99	3.84	0.60	-	1.91	5.43	7.35
Orchards	-	-	-	-	2.97	-	-	-	-	2.97	2.97
Total	11.73	38.63	7.67	0.99	25.40	37.00	17.40	4.97	59.01	84.77	143.78

NUTRIENT COMPOSITION : CARBOHYDRATE PER PERSON (Kg/Person)
(Nutrient Composition Carbohydrate File : SWCCA-3F.wk1)

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SW7	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	2.71	6.81	8.36	-	-	17.89	17.89
M Aus	0.38	2.01	-	-	0.42	0.63	-	-	2.39	1.06	3.45
B Aman	-	-	-	-	-	0.77	13.20	11.66	-	25.62	25.62
L T Aman	0.03	2.25	0.69	-	0.08	0.10	-	-	2.96	0.18	3.14
M Aman	0.96	2.03	-	-	2.25	2.49	-	-	2.99	4.74	7.72
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.13	-	-	-	5.21	2.96	-	-	0.13	8.17	8.29
Rabi											
L Boro	-	-	-	0.19	-	-	-	1.91	0.19	1.91	2.10
M Boro	1.15	8.80	22.12	9.05	-	-	-	-	41.10	-	41.10
M Wheat	0.15	0.45	0.10	-	0.28	3.40	1.36	3.04	0.69	8.07	8.76
Potato	0.08	0.02	-	-	0.45	0.66	0.90	-	0.10	2.01	2.11
Pulses	0.02	0.18	0.07	-	0.53	2.98	2.87	1.25	0.27	7.62	7.89
Oilseeds	0.02	0.14	0.03	0.00	0.15	0.42	0.67	0.41	0.19	1.65	1.83
Spices	0.03	0.19	-	-	0.23	0.33	0.16	-	0.22	0.72	0.94
Minor crops	0.01	0.13	0.01	-	0.84	4.38	0.95	-	0.15	6.16	6.31
Orchards	-	-	-	-	2.03	-	-	-	-	2.03	2.03
Total	2.93	16.20	23.00	9.24	15.18	25.92	28.46	18.26	51.36	87.83	139.19

SW8	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	8.94	2.91	0.72	-	-	12.57	12.57
M Aus	5.43	5.83	-	-	0.44	-	-	-	11.26	0.44	11.70
B Aman	-	-	-	-	-	0.45	2.63	0.89	-	3.98	3.98
L T Aman	3.21	14.01	0.62	-	7.70	9.20	0.10	-	17.84	17.00	34.84
M Aman	23.98	13.98	-	-	7.05	3.07	-	-	37.96	10.12	48.08
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	3.24	0.80	-	-	1.64	0.25	-	-	4.05	1.89	5.94
Rabi											
L Boro	-	-	-	0.54	-	-	0.03	0.23	0.54	0.26	0.80
M Boro	23.18	34.35	11.19	0.85	0.01	-	-	-	69.57	0.01	69.57
M Wheat	7.01	6.41	1.03	-	0.95	1.52	0.58	0.12	14.46	3.16	17.62
Potato	0.72	1.65	0.17	-	0.01	0.07	0.00	0.00	2.54	0.08	2.62
Pulses	0.52	0.43	0.35	0.00	3.34	0.81	0.40	0.05	1.30	4.61	5.90
Oilseeds	0.29	0.55	0.07	0.00	0.62	0.48	0.12	0.01	0.91	1.23	2.14
Spices	0.10	0.09	-	-	0.12	0.05	-	-	0.19	0.17	0.36
Minor crops	2.65	5.51	0.17	-	0.37	0.37	-	-	8.34	0.74	9.07
Orchards	0.01	-	-	-	0.66	-	-	-	0.01	0.66	0.67
Total	70.36	83.61	13.60	1.39	31.84	19.18	4.59	1.31	168.96	56.92	225.88

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NUTRIENT COMPOSITION : CARBOHYDRATE PER PERSON (Kg/Person)
(Nutrient Composition Carbohydrate File : SWCCA-3F.wk1)

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SW9	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	7.21	3.07	2.22	-	-	12.51	12.51
M Aus	4.46	6.45	-	-	0.04	-	-	-	10.91	0.04	10.95
B Aman	-	-	-	-	-	0.07	4.35	2.11	-	6.53	6.53
L T Aman	1.67	10.02	0.74	-	11.31	8.24	0.52	-	12.42	20.07	32.49
M Aman	12.58	9.10	-	-	9.44	3.68	-	-	21.69	13.12	34.80
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.19	0.05	-	-	1.30	0.05	-	-	0.24	1.35	1.59
Rabi											
L Boro	-	-	-	0.13	-	-	0.01	0.12	0.13	0.13	0.25
M Boro	11.34	21.24	12.71	1.75	-	-	-	-	47.05	-	47.05
M Wheat	5.07	5.79	1.63	-	0.55	0.78	0.40	0.06	12.49	1.79	14.28
Potato	0.52	1.67	0.20	-	0.00	0.01	0.02	-	2.40	0.03	2.43
Pulses	0.14	0.20	0.30	-	2.48	0.30	0.90	0.62	0.63	4.30	4.93
Oilseeds	0.30	0.42	0.09	-	0.53	0.08	0.23	0.04	0.80	0.88	1.69
Spices	0.02	0.01	-	-	0.28	0.09	0.03	-	0.03	0.40	0.42
Minor crops	2.04	5.54	0.31	-	0.09	0.09	0.00	-	7.88	0.19	8.07
Orchards	-	-	-	-	0.29	-	-	-	-	0.29	0.29
Total	38.31	60.49	15.98	1.88	33.51	16.45	8.69	2.96	116.66	61.61	178.27

SW10	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	4.86	4.69	4.85	-	-	14.41	14.41
M Aus	1.86	1.29	-	-	0.16	0.02	-	-	3.15	0.18	3.33
B Aman	-	-	-	-	-	1.24	14.51	3.67	-	19.41	19.41
L T Aman	0.66	1.75	0.32	-	4.17	10.83	3.26	-	2.74	18.26	21.00
M Aman	3.47	2.32	-	-	5.48	3.76	-	-	5.79	9.24	15.03
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.61	0.26	-	-	2.16	0.99	-	-	0.87	3.16	4.02
Rabi											
L Boro	-	-	-	1.14	-	-	0.01	2.66	1.14	2.67	3.80
M Boro	2.45	3.63	5.71	2.30	-	-	-	-	14.08	-	14.08
M Wheat	2.08	1.44	0.60	-	0.19	0.37	0.20	0.04	4.12	0.80	4.92
Potato	0.07	0.07	0.05	-	0.42	0.01	1.63	-	0.19	2.06	2.25
Pulses	0.06	0.05	0.02	-	0.93	0.83	2.31	0.44	0.12	4.52	4.64
Oilseeds	0.09	0.20	0.09	-	0.59	0.83	1.62	0.33	0.37	3.36	3.74
Spices	0.02	0.03	-	-	0.04	0.07	0.00	-	0.05	0.12	0.16
Minor crops	0.18	0.93	0.09	-	0.22	0.63	0.27	-	1.21	1.13	2.34
Orchards	-	-	-	-	1.12	-	-	-	-	1.12	1.12
Total	11.55	11.96	6.88	3.43	20.34	24.29	28.67	7.14	33.81	80.44	114.25

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NUTRIENT COMPOSITION : CARBOHYDRATE PER PERSON (Kg/Person)
(Nutrient Composition Carbohydrate File : SWCCA-3F.wk1)

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SW11	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.51	2.12	0.05	-	-	2.68	2.68
M Aus	0.43	3.47	-	-	-	-	-	-	3.90	-	3.90
B Aman	-	-	-	-	-	-	1.09	0.03	-	1.13	1.13
L T Aman	0.22	8.40	0.04	-	7.72	66.41	0.46	-	8.66	74.59	83.25
M Aman	2.06	10.41	-	-	4.45	16.00	-	-	12.47	20.45	32.91
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.08	-	-	-	0.53	-	-	-	0.08	0.53	0.60
Rabi											
L Boro	-	-	-	0.47	-	-	0.35	-	0.47	0.35	0.83
M Boro	2.00	24.40	0.85	0.09	-	-	-	-	27.34	-	27.34
M Wheat	0.56	3.32	0.04	-	0.02	0.03	0.00	0.00	3.92	0.04	3.96
Potato	0.02	0.42	0.01	-	-	0.93	-	-	0.45	0.93	1.38
Pulses	0.00	0.00	0.01	-	0.46	2.78	0.07	0.01	0.01	3.32	3.32
Oilseeds	0.01	0.02	0.00	-	0.23	1.72	0.04	0.00	0.03	1.99	2.02
Spices	0.01	-	-	-	0.11	0.55	0.00	-	0.01	0.66	0.67
Minor crops	0.08	0.13	0.01	-	0.19	2.79	-	-	0.22	2.97	3.20
Orchards	-	-	-	-	1.60	-	-	-	-	1.60	1.60
Total	5.47	50.56	0.96	0.57	15.82	93.31	2.07	0.05	57.56	111.24	168.80

SW12	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.73	0.91	0.39	-	-	2.03	2.03
M Aus	0.43	1.04	-	-	-	-	-	-	1.47	-	1.47
B Aman	-	-	-	-	-	0.01	0.90	0.34	-	1.24	1.24
L T Aman	0.18	1.58	0.06	-	2.94	17.54	0.20	-	1.82	20.68	22.50
M Aman	0.83	1.96	-	-	1.91	4.40	-	-	2.80	6.32	9.11
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.01	0.00	-	-	0.26	0.00	-	-	0.01	0.27	0.28
Rabi											
L Boro	-	-	-	0.07	-	-	0.09	0.01	0.07	0.10	0.17
M Boro	0.63	3.88	1.03	0.17	-	-	-	-	5.70	-	5.70
M Wheat	0.39	0.89	0.18	-	-	-	0.06	0.01	1.45	0.07	1.52
Potato	0.02	0.11	0.01	-	0.00	0.05	0.00	-	0.14	0.05	0.19
Pulses	0.02	0.03	0.02	-	0.20	0.74	0.17	0.11	0.07	1.21	1.28
Oilseeds	0.02	0.03	0.01	-	0.15	0.69	0.08	0.01	0.06	0.92	0.98
Spices	0.00	0.00	-	-	0.03	0.08	0.00	-	0.00	0.12	0.12
Minor crops	0.10	0.31	0.02	-	0.01	0.15	0.00	-	0.44	0.16	0.60
Orchards	-	-	-	-	0.11	-	-	-	-	0.11	0.11
Total	2.63	9.82	1.33	0.24	6.35	24.56	1.89	0.47	14.03	33.27	47.30

NUTRIENT COMPOSITION : CARBOHYDRATE PER PERSON (Kg/Person)
 (Nutrient Composition Carbohydrate File : SWCCA-3F.wk1)

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SW13	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	2.04	7.43	4.84	-	-	14.30	14.30
M Aus	0.50	0.56	-	-	0.12	0.18	-	-	1.06	0.30	1.36
B Aman	-	-	-	-	-	2.26	9.34	6.32	-	17.92	17.92
L T Aman	0.15	1.19	0.25	-	2.32	25.00	1.34	0.04	1.59	28.70	30.29
M Aman	1.03	1.64	-	-	4.27	9.78	-	0.03	2.68	14.08	16.76
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.10	0.09	-	-	2.06	1.98	-	-	0.19	4.03	4.22
Rabi											
L Boro	-	0.00	0.28	0.55	-	-	0.00	1.17	0.83	1.17	2.00
M Boro	0.70	3.08	4.38	2.31	-	-	-	-	10.47	-	10.47
M Wheat	0.55	0.55	0.18	-	0.09	1.75	0.03	1.40	1.28	3.28	4.56
Potato	0.02	0.05	0.02	-	1.02	2.50	1.76	-	0.08	5.28	5.37
Pulses	0.00	0.00	-	-	0.33	3.44	1.65	0.67	0.00	6.09	6.09
Oilseeds	0.02	0.08	0.02	-	0.19	1.38	0.82	0.33	0.12	2.72	2.85
Spices	0.00	0.01	-	-	0.02	0.09	0.01	-	0.01	0.12	0.13
Minor crops	0.03	0.43	0.03	-	0.41	2.21	0.52	-	0.49	3.13	3.63
Orchards	-	-	-	-	4.08	-	-	-	-	4.08	4.08
Total	3.10	7.67	5.17	2.85	16.95	57.99	20.31	9.96	18.80	105.22	124.02

SW14	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.55	2.70	0.23	-	-	3.48	3.48
M Aus	0.07	0.46	-	-	-	-	-	-	0.53	-	0.53
B Aman	-	-	-	-	-	0.20	1.69	0.15	-	2.04	2.04
L T Aman	0.03	1.09	0.01	-	8.07	71.30	0.62	0.00	1.13	79.98	81.12
M Aman	0.24	1.38	-	-	4.76	17.37	-	0.00	1.63	22.14	23.76
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.01	0.00	-	-	0.64	0.13	-	-	0.02	0.77	0.78
Rabi											
L Boro	-	-	0.01	0.09	-	-	0.37	0.07	0.10	0.44	0.53
M Boro	0.23	3.18	0.15	0.04	-	-	-	-	3.60	-	3.60
M Wheat	0.08	0.44	0.01	-	-	0.07	-	-	0.53	0.07	0.60
Potato	0.00	0.05	0.00	-	0.06	1.67	0.13	-	0.06	1.86	1.92
Pulses	-	-	-	-	0.43	3.09	0.16	0.02	-	3.70	3.70
Oilseeds	0.00	0.00	0.00	-	0.23	1.85	0.09	0.01	0.00	2.18	2.18
Spices	0.00	0.00	-	-	0.05	0.26	-	-	0.00	0.31	0.31
Minor crops	0.01	0.04	0.00	-	0.30	4.61	0.02	-	0.05	4.94	4.99
Orchards	-	-	-	-	2.84	-	-	-	-	2.84	2.84
Total	0.67	6.65	0.19	0.13	17.93	103.25	3.30	0.26	7.64	124.74	132.38

NUTRIENT COMPOSITION : CARBOHYDRATE PER PERSON (Kg/Person)
(Nutrient Composition Carbohydrate File : SWCCA-3F.wk1)

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<i>SW Total</i>	<i>IRRIGATED</i>				<i>NON-IRRIGATED</i>				<i>Total</i>		
<i>CROP</i>	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
<i>Kharif</i>											
B Aus	-	-	-	-	78.10	82.14	36.12	-	-	196.35	196.35
M Aus	34.39	69.82	-	-	2.47	6.16	-	-	104.21	8.63	112.84
B Aman	-	-	-	-	-	16.55	91.62	38.88	-	147.05	147.05
L T Aman	13.71	93.68	4.30	-	50.82	221.04	7.17	0.05	111.69	279.09	390.78
M Aman	131.65	91.71	-	-	68.37	76.26	-	0.04	223.37	144.66	368.02
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	33.85	7.41	-	-	46.23	20.71	-	-	41.26	66.95	108.20
<i>Rabi</i>											
L Boro	-	0.00	0.30	5.86	-	-	0.85	8.43	6.16	9.28	15.44
M Boro	117.91	199.99	84.34	18.14	2.04	-	-	-	420.38	2.04	422.42
M Wheat	44.45	60.02	11.86	-	4.77	24.22	10.35	5.85	116.33	45.19	161.51
Potato	1.60	5.65	0.63	-	3.77	6.08	5.00	0.03	7.88	14.87	22.75
Pulses	1.73	4.66	0.97	0.00	17.64	32.88	16.10	3.97	7.35	70.60	77.95
Oilseeds	1.18	2.80	0.35	0.00	4.21	10.57	5.18	1.32	4.32	21.27	25.60
Spices	1.24	1.08	-	-	1.76	3.56	0.52	-	2.32	5.84	8.16
Minor crops	14.10	26.58	0.91	-	4.86	26.44	3.02	-	41.58	34.32	75.90
Orchards	1.88	-	-	-	21.04	-	-	-	1.88	21.04	22.92
Total	397.68	563.40	103.64	24.00	306.06	526.61	175.95	58.56	1088.72	1067.18	2155.90

<i>SW Avg</i>	<i>IRRIGATED</i>				<i>NON-IRRIGATED</i>				<i>Total</i>		
<i>CROP</i>	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
<i>Kharif</i>											
B Aus	-	-	-	-	5.58	5.87	2.58	-	-	14.03	14.03
M Aus	2.46	4.99	-	-	0.18	0.44	-	-	7.44	0.62	8.06
B Aman	-	-	-	-	-	1.18	6.54	2.78	-	10.50	10.50
L T Aman	0.98	6.69	0.31	-	3.63	15.79	0.51	0.00	7.98	19.93	27.91
M Aman	9.40	6.55	-	-	4.88	5.45	-	0.00	15.95	10.33	26.29
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	2.42	0.53	-	-	3.30	1.48	-	-	2.95	4.78	7.73
<i>Rabi</i>											
L Boro	-	0.00	0.02	0.42	-	-	0.06	0.60	0.44	0.66	1.10
M Boro	8.42	14.28	6.02	1.30	0.15	-	-	-	30.03	0.15	30.17
M Wheat	3.17	4.29	0.85	-	0.34	1.73	0.74	0.42	8.31	3.23	11.54
Potato	0.11	0.40	0.04	-	0.27	0.43	0.36	0.00	0.56	1.06	1.63
Pulses	0.12	0.33	0.07	0.00	1.26	2.35	1.15	0.28	0.53	5.04	5.57
Oilseeds	0.08	0.20	0.02	0.00	0.30	0.75	0.37	0.09	0.31	1.52	1.83
Spices	0.09	0.08	-	-	0.13	0.25	0.04	-	0.17	0.42	0.58
Minor crops	1.01	1.90	0.06	-	0.35	1.89	0.22	-	2.97	2.45	5.42
Orchards	0.13	-	-	-	1.50	-	-	-	0.13	1.50	1.64
Total	28.41	40.24	7.40	1.71	21.86	37.61	12.57	4.18	77.77	76.23	153.99

NUTRIENT COMPOSITION : CARBOHYDRATE PER PERSON (Kg/Person)
(Nutrient Composition Carbohydrate File : SWCCA-3F.wk1)

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SC1	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	3.33	9.25	6.59	-	-	19.17	19.17
M Aus	0.53	3.52	-	-	0.42	0.53	-	-	4.05	0.96	5.01
B Aman	-	-	-	-	-	1.28	12.25	1.83	-	15.37	15.37
L T Aman	0.00	2.56	0.64	-	0.19	0.03	-	-	3.20	0.21	3.41
M Aman	1.16	1.77	-	-	1.93	0.99	-	-	2.94	2.93	5.86
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.27	-	-	-	7.60	4.52	-	-	0.27	12.13	12.40
Rabi											
L Boro	-	-	-	0.36	-	-	-	2.17	0.36	2.17	2.52
M Boro	1.36	8.77	20.82	1.35	-	-	-	-	32.29	-	32.29
M Wheat	-	-	-	-	0.28	3.43	3.08	0.04	-	6.84	6.84
Potato	0.04	-	-	-	0.01	0.74	0.67	-	0.04	1.42	1.46
Pulses	0.03	0.41	0.16	-	0.66	4.61	3.11	0.31	0.60	8.70	9.30
Oilseeds	0.02	0.15	0.08	0.01	0.22	1.02	0.77	0.04	0.26	2.06	2.32
Spices	0.09	0.61	-	-	0.52	0.56	0.34	-	0.70	1.42	2.13
Minor crops	-	-	-	-	0.89	5.17	0.67	-	-	6.74	6.74
Orchards	-	-	-	-	2.08	-	-	-	-	2.08	2.08
Total	3.50	17.79	21.71	1.71	18.14	32.15	27.50	4.40	44.71	82.18	126.89

SC2	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	2.84	11.33	1.60	-	-	15.77	15.77
M Aus	0.13	0.90	-	-	1.03	2.82	-	-	1.04	3.85	4.89
B Aman	-	-	-	-	-	5.92	13.73	2.27	-	21.92	21.92
L T Aman	0.13	4.95	0.26	-	1.59	11.30	0.42	-	5.34	13.31	18.66
M Aman	1.86	6.35	-	-	1.34	1.53	-	-	8.21	2.87	11.08
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.07	-	-	-	5.00	4.58	-	-	0.07	9.57	9.64
Rabi											
L Boro	-	-	-	0.12	-	-	-	1.58	0.12	1.58	1.70
M Boro	3.24	25.49	8.44	1.02	-	-	-	-	38.19	-	38.19
M Wheat	-	-	-	-	0.32	3.43	2.17	0.09	-	6.01	6.01
Potato	0.01	-	-	-	0.27	1.12	0.17	-	0.01	1.55	1.56
Pulses	0.12	0.10	0.04	-	1.33	3.32	2.91	0.22	0.27	7.79	8.06
Oilseeds	0.05	0.78	0.03	0.00	0.16	0.20	1.14	0.03	0.86	1.53	2.39
Spices	0.01	0.03	-	-	0.10	0.24	0.04	-	0.04	0.39	0.43
Minor crops	-	-	-	-	0.99	5.95	0.61	-	-	7.54	7.54
Orchards	-	-	-	-	3.10	-	-	-	-	3.10	3.10
Total	5.63	38.61	8.77	1.14	18.07	51.74	22.79	4.20	54.15	96.80	150.94

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NUTRIENT COMPOSITION : CARBOHYDRATE PER PERSON (Kg/Person)
(Nutrient Composition Carbohydrate File : SWCCA-3F.wk1)

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SC3	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	1.77	8.66	3.38	-	-	13.81	13.81
M Aus	0.11	0.75	-	-	0.76	1.79	-	-	0.86	2.55	3.41
B Aman	-	-	-	-	-	1.53	9.45	5.46	-	16.43	16.43
L T Aman	0.13	5.41	0.80	-	0.72	5.17	0.02	-	6.34	5.91	12.25
M Aman	1.73	7.06	-	-	2.73	3.69	-	-	8.79	6.42	15.21
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.06	-	-	-	3.72	3.51	-	-	0.06	7.23	7.29
Rabi											
L Boro	-	-	-	1.82	-	-	-	0.75	1.82	0.75	2.57
M Boro	3.05	28.20	26.06	0.31	-	-	-	-	57.61	-	57.61
M Wheat	-	-	-	-	0.87	0.97	0.46	0.00	-	2.31	2.31
Potato	0.02	-	-	-	0.36	0.59	0.41	-	0.02	1.37	1.39
Pulses	0.01	0.09	0.03	-	0.34	2.06	1.27	0.24	0.13	3.91	4.04
Oilseeds	0.06	0.87	0.01	0.00	0.06	0.34	0.31	0.02	0.95	0.74	1.68
Spices	0.00	0.03	-	-	0.06	0.18	0.05	-	0.03	0.29	0.32
Minor crops	-	-	-	-	0.50	3.13	0.43	-	-	4.06	4.06
Orchards	-	-	-	-	2.38	-	-	-	-	2.38	2.38
Totals	5.17	42.40	26.91	2.12	14.28	31.61	15.79	6.46	76.61	68.15	144.76

SC4	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	2.27	11.14	7.32	-	-	20.72	20.72
M Aus	0.00	0.00	-	-	0.78	1.72	-	-	0.00	2.50	2.50
B Aman	-	-	-	-	-	1.32	13.17	12.44	-	26.93	26.93
L T Aman	0.09	3.43	0.64	-	0.93	7.04	0.00	0.00	4.16	7.97	12.13
M Aman	0.80	3.68	-	-	3.58	5.23	-	0.00	4.48	8.81	13.29
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.00	0.00	-	-	3.99	3.78	-	-	0.00	7.76	7.77
Rabi											
L Boro	-	-	0.00	0.92	-	-	-	1.12	0.92	1.12	2.04
M Boro	1.18	11.69	13.11	2.75	-	-	-	-	28.73	-	28.73
M Wheat	0.00	0.00	-	-	1.02	1.55	-	1.84	0.00	4.40	4.41
Potato	0.00	0.00	0.00	-	0.51	0.59	0.59	-	0.00	1.69	1.69
Pulses	-	-	-	-	0.35	2.10	1.83	0.90	-	5.17	5.17
Oilseeds	0.03	0.45	0.00	-	0.08	0.31	0.47	0.25	0.49	1.10	1.59
Spices	0.00	0.00	-	-	0.07	0.20	0.05	-	0.00	0.32	0.32
Minor crops	0.00	0.00	0.00	-	0.50	2.97	0.59	-	0.00	4.06	4.06
Orchards	-	-	-	-	2.25	-	-	-	-	2.25	2.25
Total	2.09	19.26	13.75	3.66	16.32	37.94	24.02	16.55	38.78	94.83	133.60

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NUTRIENT COMPOSITION : CARBOHYDRATE PER PERSON (Kg/Person)
(Nutrient Composition Carbohydrate File : SWCCA-3F.wk1)

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SC5	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	1.37	3.74	0.50	-	-	5.60	5.60
M Aus	4.53	1.95	-	-	0.28	0.51	-	-	6.48	0.79	7.28
B Aman	-	-	-	-	-	0.24	1.27	0.88	-	2.39	2.39
L T Aman	2.13	9.98	1.03	-	1.65	7.12	0.00	0.00	13.14	8.78	21.91
M Aman	27.33	11.14	-	-	1.94	3.72	-	0.00	38.47	5.66	44.13
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.01	0.00	-	-	1.06	0.72	-	-	0.01	1.79	1.80
Rabi											
L Boro	-	3.33	0.01	2.15	-	-	-	0.07	5.50	0.07	5.57
M Boro	32.53	25.93	21.11	0.01	-	-	-	-	79.58	-	79.58
M Wheat	1.63	0.09	-	-	0.14	0.18	0.00	0.00	1.72	0.32	2.03
Potato	5.26	2.60	0.00	-	0.07	0.14	0.06	-	7.86	0.26	8.12
Pulses	0.01	0.01	-	-	0.20	0.89	0.13	0.03	0.02	1.26	1.28
Oilseeds	0.55	1.00	0.00	-	0.03	0.24	0.03	0.00	1.55	0.30	1.85
Spices	0.27	0.00	-	-	0.02	0.07	0.01	-	0.28	0.09	0.37
Minor crops	0.17	0.25	0.00	-	0.20	1.25	0.06	-	0.41	1.51	1.93
Orchards	-	-	-	-	0.83	-	-	-	-	0.83	0.83
Total	74.42	56.30	22.15	2.16	7.79	18.83	2.06	0.99	155.02	29.66	184.68

SC6	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	3.43	12.87	0.34	-	-	16.64	16.64
M Aus	0.32	0.10	-	-	0.98	2.61	-	-	0.42	3.59	4.00
B Aman	-	-	-	-	-	5.66	11.37	2.32	-	19.35	19.35
L T Aman	0.29	5.07	0.15	-	3.20	19.24	0.54	-	5.51	22.98	28.49
M Aman	3.25	5.56	-	-	2.37	3.82	-	-	8.81	6.19	15.00
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.00	-	-	-	3.94	3.93	-	-	0.00	7.87	7.87
Rabi											
L Boro	-	0.24	0.00	0.12	-	-	-	1.10	0.36	1.10	1.46
M Boro	4.24	16.87	3.05	0.48	-	-	-	-	24.64	-	24.64
M Wheat	0.12	0.00	-	-	0.33	2.62	1.42	0.09	0.12	4.46	4.58
Potato	0.08	0.03	-	-	0.30	0.97	0.04	-	0.11	1.31	1.42
Pulses	0.10	0.00	0.00	-	1.31	2.80	2.21	0.17	0.10	6.48	6.58
Oilseeds	0.08	0.66	0.01	-	0.13	0.19	0.97	0.03	0.75	1.32	2.07
Spices	0.02	0.00	-	-	0.09	0.26	0.03	-	0.02	0.37	0.39
Minor crops	0.00	0.00	0.00	-	0.93	5.61	0.48	-	0.00	7.01	7.02
Orchards	-	-	-	-	3.09	-	-	-	-	3.09	3.09
Total	8.49	28.54	3.20	0.59	20.10	60.58	17.39	3.70	40.82	101.77	142.59

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NUTRIENT COMPOSITION : CARBOHYDRATE PER PERSON (Kg/Person)
(Nutrient Composition Carbohydrate File : SWCCA-3F.wk1)

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SC7	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	1.44	3.53	-	-	-	4.96	4.96
M Aus	7.73	4.43	-	-	0.24	0.38	-	-	12.17	0.62	12.78
B Aman	-	-	-	-	-	0.07	0.02	0.00	-	0.10	0.10
L T Aman	3.29	6.95	0.02	-	2.33	9.91	0.05	-	10.27	12.29	22.55
M Aman	44.97	7.74	-	-	1.87	4.40	-	-	52.71	6.27	58.98
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.12	-	-	-	0.73	0.28	-	-	0.12	1.01	1.13
Rabi											
L Boro	-	5.54	0.14	-	-	-	-	0.00	5.68	0.00	5.68
M Boro	52.44	7.39	0.21	0.01	-	-	-	-	60.05	-	60.05
M Wheat	3.04	0.43	-	-	0.00	0.25	0.00	0.00	3.47	0.26	3.73
Potato	1.76	0.95	-	-	0.03	0.14	-	-	2.70	0.17	2.87
Pulses	0.04	0.07	0.00	-	0.19	0.97	0.00	0.00	0.11	1.17	1.28
Oilseeds	0.77	0.05	0.00	-	0.03	0.25	0.00	0.00	0.82	0.28	1.10
Spices	0.46	0.01	-	-	0.02	0.06	0.00	-	0.47	0.07	0.54
Minor crops	0.14	0.26	0.00	-	0.17	1.12	0.00	-	0.41	1.30	1.70
Orchards	-	-	-	-	0.78	-	-	-	-	0.78	0.78
Total	114.76	33.82	0.38	0.01	7.82	21.37	0.08	0.00	148.98	29.27	178.25

SC8	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	3.91	11.54	-	-	-	15.45	15.45
M Aus	0.51	0.40	-	-	0.28	0.94	-	-	0.91	1.22	2.13
B Aman	-	-	-	-	-	0.08	0.31	0.03	-	0.42	0.42
L T Aman	0.41	2.72	0.07	-	13.89	65.82	2.34	-	3.20	82.04	85.24
M Aman	9.43	2.65	-	-	1.73	2.38	-	-	12.08	4.11	16.19
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.25	-	-	-	0.70	0.05	-	-	0.25	0.75	1.00
Rabi											
L Boro	-	0.28	0.28	-	-	-	-	0.01	0.56	0.01	0.57
M Boro	7.17	4.97	0.34	0.01	-	-	-	-	12.49	-	12.49
M Wheat	1.12	0.45	-	-	0.00	0.04	0.02	0.00	1.57	0.06	1.63
Potato	-	0.02	-	-	0.53	0.01	-	-	0.02	0.55	0.57
Pulses	0.03	0.08	0.01	-	0.60	5.07	0.12	0.00	0.11	5.80	5.91
Oilseeds	0.02	0.07	0.00	-	0.21	0.88	0.03	0.00	0.09	1.13	1.21
Spices	0.05	0.01	-	-	0.03	0.21	0.00	-	0.05	0.24	0.30
Minor crops	0.06	0.22	0.01	-	0.54	3.72	0.01	-	0.30	4.26	4.56
Orchards	-	-	-	-	3.22	-	-	-	-	3.22	3.22
Total	19.06	11.86	0.71	0.01	25.64	90.74	2.83	0.04	31.63	119.26	150.89

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NUTRIENT COMPOSITION : CARBOHYDRATE PER PERSON (Kg/Person)
(Nutrient Composition Carbohydrate File : SWCCA-3F.wk1)

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SC9	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	4.43	16.11	-	-	-	20.54	20.54
M Aus	0.25	0.40	-	-	0.41	1.23	-	-	0.65	1.64	2.29
B Aman	-	-	-	-	-	0.18	0.15	-	-	0.33	0.33
L T Aman	0.17	1.41	0.03	-	16.58	79.56	2.22	-	1.61	98.37	99.98
M Aman	3.84	1.39	-	-	2.88	10.60	-	-	5.22	13.49	18.71
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.10	-	-	-	0.75	-	-	-	0.10	0.75	0.86
Rabi											
L Boro	-	0.11	0.11	-	-	-	-	-	0.22	-	0.22
M Boro	2.87	2.29	0.12	-	-	-	-	-	5.28	-	5.28
M Wheat	0.45	0.21	-	-	-	1.33	-	-	0.67	1.33	2.00
Potato	0.00	0.02	-	-	0.61	0.72	-	-	0.03	1.33	1.36
Pulses	0.01	0.03	0.00	-	0.60	5.97	0.08	-	0.05	6.65	6.69
Oilseeds	0.01	0.02	-	-	0.20	1.05	0.01	-	0.03	1.26	1.29
Spices	0.02	0.00	-	-	0.04	0.28	0.00	-	0.02	0.32	0.34
Minor crops	0.04	0.11	0.00	-	0.51	4.20	-	-	0.15	4.70	4.85
Orchards	-	-	-	-	4.74	-	-	-	-	4.74	4.74
Total	7.76	6.01	0.27	-	31.77	121.22	2.47	-	14.03	155.46	169.50

SC10	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	3.41	18.17	-	-	-	21.58	21.58
M Aus	0.59	1.73	-	-	0.59	1.32	-	-	2.32	1.91	4.23
B Aman	-	-	-	-	-	0.52	0.05	-	-	0.57	0.57
L T Aman	0.22	3.14	0.01	-	13.22	64.92	0.50	-	3.38	78.65	82.03
M Aman	4.24	3.16	-	-	4.66	25.51	-	-	7.40	30.17	37.57
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.09	-	-	-	0.84	0.13	-	-	0.09	0.97	1.06
Rabi											
L Boro	-	0.18	0.06	-	-	-	-	-	0.24	-	0.24
M Boro	2.93	3.71	0.06	-	-	-	-	-	6.70	-	6.70
M Wheat	0.40	0.36	-	-	-	3.77	-	-	0.76	3.77	4.54
Potato	0.26	0.50	-	-	0.42	2.03	-	-	0.76	2.45	3.20
Pulses	0.03	0.07	0.00	-	0.56	7.21	0.02	-	0.10	7.79	7.89
Oilseeds	0.04	0.04	-	-	0.11	1.06	0.00	-	0.08	1.17	1.25
Spices	0.03	0.01	-	-	0.05	0.29	0.00	-	0.04	0.34	0.37
Minor crops	0.39	0.65	0.01	-	0.19	3.26	-	-	1.05	3.45	4.50
Orchards	-	-	-	-	5.71	-	-	-	-	5.71	5.71
Total	9.22	13.55	0.15	-	29.76	128.20	0.58	-	22.92	158.53	181.45

NUTRIENT COMPOSITION : CARBOHYDRATE PER PERSON (Kg/Person)
(Nutrient Composition Carbohydrate File : SWCCA-3F.wk1)

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SC11	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	2.46	10.47	-	-	-	12.94	12.94
M Aus	5.22	8.36	-	-	0.47	0.89	-	-	13.58	1.36	14.94
B Aman	-	-	-	-	-	0.27	0.01	-	-	0.28	0.28
L T Aman	1.84	11.23	0.00	-	6.15	29.07	0.01	-	13.08	35.24	48.31
M Aman	26.17	11.68	-	-	3.44	14.30	-	-	37.85	17.74	55.59
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.15	-	-	-	0.94	0.31	-	-	0.15	1.24	1.39
Rabi											
L Boro	-	3.01	0.03	-	-	-	-	-	3.04	-	3.04
M Boro	29.11	16.18	0.02	-	-	-	-	-	45.31	-	45.31
M Wheat	1.78	1.02	-	-	-	1.79	-	-	2.80	1.79	4.59
Potato	0.85	0.76	-	-	0.15	0.96	-	-	1.61	1.11	2.71
Pulses	0.10	0.18	0.00	-	0.35	3.36	0.00	-	0.29	3.71	4.00
Oilseeds	0.42	0.08	-	-	0.04	0.49	0.00	-	0.50	0.53	1.03
Spices	0.26	0.02	-	-	0.03	0.15	0.00	-	0.28	0.18	0.46
Minor crops	0.34	0.49	0.00	-	0.18	1.98	-	-	0.83	2.16	3.00
Orchards	-	-	-	-	2.74	-	-	-	-	2.74	2.74
Total	66.25	53.02	0.05	-	16.96	64.04	0.02	-	119.32	81.02	200.34

SC12	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	3.16	12.09	0.00	-	-	15.26	15.26
M Aus	0.56	0.94	-	-	0.35	0.92	-	-	1.50	1.27	2.77
B Aman	-	-	-	-	-	0.22	0.11	0.00	-	0.34	0.34
L T Aman	0.33	2.73	0.04	-	11.43	55.10	1.30	0.00	3.10	67.83	70.92
M Aman	6.98	2.71	-	-	2.65	10.50	-	0.00	9.69	13.14	22.83
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.17	0.00	-	-	0.69	0.10	-	-	0.17	0.78	0.96
Rabi											
L Boro	-	0.25	0.18	0.01	-	-	-	0.00	0.43	0.00	0.43
M Boro	5.18	4.09	0.20	0.00	-	-	-	-	9.47	-	9.47
M Wheat	0.77	0.39	-	-	0.00	1.34	-	-	1.16	1.34	2.50
Potato	0.04	0.07	0.00	-	0.41	0.77	0.00	-	0.11	1.18	1.29
Pulses	0.03	0.07	0.01	-	0.53	5.36	0.06	0.00	0.11	5.96	6.06
Oilseeds	0.02	0.03	0.00	-	0.10	0.59	0.01	0.00	0.05	0.70	0.75
Spices	0.04	0.01	-	-	0.03	0.20	0.00	-	0.05	0.24	0.28
Minor crops	0.07	0.19	0.01	-	0.34	2.99	0.00	-	0.28	3.33	3.61
Orchards	-	-	-	-	3.63	-	-	-	-	3.63	3.63
Total	14.19	11.47	0.44	0.01	23.31	90.20	1.48	0.00	26.11	115.00	141.11

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NUTRIENT COMPOSITION : CARBOHYDRATE PER PERSON (Kg/Person)
(Nutrient Composition Carbohydrate File : SWCCA-3F.wk1)

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SC13	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	6.09	17.92	-	-	-	24.01	24.01
M Aus	0.28	0.22	-	-	0.42	1.44	-	-	0.49	1.85	2.35
B Aman	-	-	-	-	-	-	0.24	-	-	0.24	0.24
L T Aman	0.22	1.43	0.04	-	21.76	103.04	3.66	-	1.69	128.47	130.16
M Aman	5.11	1.39	-	-	2.70	3.71	-	-	6.50	6.41	12.91
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.14	-	-	-	1.02	-	-	-	0.14	1.02	1.16
Rabi											
L Boro	-	0.15	0.15	-	-	-	-	-	0.30	-	0.30
M Boro	3.88	2.60	0.17	-	-	-	-	-	6.66	-	6.66
M Wheat	0.61	0.24	-	-	-	-	-	-	0.85	-	0.85
Potato	-	0.07	-	-	0.83	-	-	-	0.07	0.83	0.90
Pulses	0.01	0.04	0.00	-	0.89	7.68	0.14	-	0.06	8.72	8.77
Oilseeds	0.01	0.03	-	-	0.32	1.39	0.02	-	0.04	1.73	1.77
Spices	0.03	0.00	-	-	0.05	0.32	0.01	-	0.03	0.37	0.40
Minor crops	0.20	0.72	0.04	-	0.83	5.73	-	-	0.96	6.56	7.52
Orchards	-	-	-	-	5.01	-	-	-	-	5.01	5.01
Total	10.48	6.90	0.41	-	39.93	141.22	4.07	-	17.79	185.23	203.01

SC Total	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	39.90	146.82	19.73	-	-	206.45	206.45
M Aus	20.77	23.70	-	-	7.01	17.10	-	-	44.47	24.11	68.58
B Aman	-	-	-	-	-	17.31	62.13	25.23	-	104.67	104.67
L T Aman	9.25	61.01	3.73	-	93.65	457.33	11.06	0.00	74.00	562.05	636.05
M Aman	136.86	66.28	-	-	33.82	90.39	-	0.00	203.14	124.22	327.36
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	1.44	0.00	-	-	30.97	21.91	-	-	1.44	52.89	54.33
Rabi											
L Boro	-	13.09	0.97	5.49	-	-	-	6.81	19.54	6.81	26.35
M Boro	149.19	158.18	93.72	5.92	-	-	-	-	407.01	-	407.01
M Wheat	9.93	3.20	-	-	2.97	20.70	7.16	2.06	13.13	32.89	46.02
Potato	8.30	5.03	0.00	-	4.50	8.78	1.94	-	13.33	15.21	28.54
Pulses	0.52	1.16	0.27	-	7.92	51.39	11.90	1.87	1.95	73.09	75.04
Oilseeds	2.08	4.23	0.13	0.01	1.68	8.02	3.77	0.38	6.45	13.85	20.30
Spices	1.28	0.73	-	-	1.11	3.01	0.53	-	2.01	4.65	6.66
Minor crops	1.42	2.90	0.08	-	6.77	47.08	2.84	-	4.39	56.70	61.09
Orchards	-	-	-	-	39.58	-	-	-	-	39.58	39.58
Total	341.02	339.51	98.90	11.41	269.89	889.85	121.07	36.35	790.85	1317.15	2108.01

NUTRIENT COMPOSITION : CARBOHYDRATE PER PERSON (Kg/Person)
(Nutrient Composition Carbohydrate File : SWCCA-3F.wk1)

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TOTAL	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	118.00	228.96	55.85	-	-	402.80	402.80
M Aus	55.15	93.52	-	-	9.48	23.27	-	-	148.67	32.74	181.42
B Aman	-	-	-	-	-	33.86	153.75	64.11	-	251.72	251.72
L T Aman	22.96	154.69	8.04	-	144.48	678.37	18.24	0.05	185.69	841.14	1026.82
M Aman	268.51	157.99	-	-	102.19	166.65	-	0.04	426.51	268.87	695.38
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	35.29	7.41	-	-	77.20	42.63	-	-	42.70	119.83	162.53
Rabi											
L Boro	-	13.09	1.26	11.35	-	-	0.85	15.23	25.70	16.09	41.78
M Boro	267.10	358.16	178.06	24.06	2.04	-	-	-	827.39	2.04	829.43
M Wheat	54.38	63.22	11.86	-	7.74	44.92	17.51	7.91	129.45	78.08	207.53
Potato	9.90	10.68	0.63	-	8.26	14.86	6.94	0.03	21.21	30.09	51.29
Pulses	2.25	5.82	1.23	0.00	25.56	84.27	28.00	5.85	9.31	143.68	152.99
Oilseeds	3.26	7.03	0.48	0.01	5.89	18.58	8.95	1.70	10.78	35.12	45.90
Spices	2.51	1.82	-	-	2.87	6.57	1.05	-	4.33	10.49	14.82
Minor crops	15.51	29.47	0.99	-	11.63	73.52	5.86	-	45.97	91.01	136.99
Orchards	1.88	-	-	-	60.62	-	-	-	1.88	60.62	62.50
Total	738.70	902.91	202.54	35.42	575.95	*****	297.02	94.91	1879.57	2384.33	4263.91

SC Avg	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	3.07	11.29	1.52	-	-	15.88	15.88
M Aus	1.60	1.82	-	-	0.54	1.32	-	-	3.42	1.85	5.28
B Aman	-	-	-	-	-	1.33	4.78	1.94	-	8.05	8.05
L T Aman	0.71	4.69	0.29	-	7.20	35.18	0.85	0.00	5.69	43.23	48.93
M Aman	10.53	5.10	-	-	2.60	6.95	-	0.00	15.63	9.56	25.18
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.11	0.00	-	-	2.38	1.69	-	-	0.11	4.07	4.18
Rabi											
L Boro	-	1.01	0.07	0.42	-	-	-	0.52	1.50	0.52	2.03
M Boro	11.48	12.17	7.21	0.46	-	-	-	-	31.31	-	31.31
M Wheat	0.76	0.25	-	-	0.23	1.59	0.55	0.16	1.01	2.53	3.54
Potato	0.64	0.39	0.00	-	0.35	0.68	0.15	-	1.03	1.17	2.20
Pulses	0.04	0.09	0.02	-	0.61	3.95	0.92	0.14	0.15	5.62	5.77
Oilseeds	0.16	0.33	0.01	0.00	0.13	0.62	0.29	0.03	0.50	1.07	1.56
Spices	0.10	0.06	-	-	0.09	0.23	0.04	-	0.15	0.36	0.51
Minor crops	0.11	0.22	0.01	-	0.52	3.62	0.22	-	0.34	4.36	4.70
Orchards	-	-	-	-	3.04	-	-	-	-	3.04	3.04
Total	26.23	26.12	7.61	0.88	20.76	68.45	9.31	2.80	60.83	101.32	162.15

PROT-3EA.wk1

NUTRIENT COMPOSITION : PROTEIN PER PERSON (Kg/person)

(Nutrient Composition Protein File : SWCPR-3E.wk1)

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SW1	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	1.32	1.04	0.50	-	-	2.85	2.85
M Aus	0.43	0.80	-	-	-	-	-	-	1.24	-	1.24
B Aman	-	-	-	-	-	0.00	0.50	0.05	-	0.55	0.55
L T Aman	0.01	0.98	0.02	-	0.00	0.00	-	-	1.01	0.00	1.01
M Aman	1.27	0.74	-	-	0.45	0.11	-	-	2.01	0.56	2.57
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.92	0.36	-	-	0.31	0.40	-	-	1.28	0.71	1.99
Rabi											
L Boro	-	-	-	0.03	-	-	-	0.06	0.03	0.06	0.09
M Boro	0.30	0.90	0.13	0.00	0.16	-	-	-	1.33	0.16	1.49
M Wheat	1.58	1.82	0.32	-	0.07	0.55	-	0.04	3.71	0.66	4.37
Potato	-	0.03	0.01	-	0.03	-	0.01	0.00	0.04	0.04	0.08
Pulses	0.22	0.04	0.02	0.00	0.63	1.07	0.45	0.05	0.28	2.21	2.49
Oilseeds	0.11	0.24	-	0.00	0.30	0.11	0.15	0.05	0.35	0.61	0.96
Spices	0.03	0.00	-	-	0.04	0.08	-	-	0.03	0.12	0.15
Minor crops	0.23	0.03	-	-	-	0.29	-	-	0.26	0.29	0.54
Orchards	0.13	-	-	-	0.05	-	-	-	0.13	0.05	0.18
Total	5.22	5.96	0.49	0.03	3.37	3.64	1.61	0.27	11.69	8.89	20.58

SW2	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.09	0.17	0.10	-	-	0.35	0.35
M Aus	0.53	1.38	-	-	0.00	0.00	-	-	1.91	0.00	1.91
B Aman	-	-	-	-	-	0.02	0.06	0.02	-	0.10	0.10
L T Aman	0.31	1.55	0.03	-	0.00	0.02	0.00	-	1.88	0.03	1.91
M Aman	3.71	1.43	-	-	0.09	0.10	-	-	5.14	0.20	5.33
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	2.47	0.35	-	-	0.22	0.07	-	-	2.82	0.29	3.11
Rabi											
L Boro	-	-	-	0.03	-	-	-	0.00	0.03	0.00	0.03
M Boro	4.00	2.81	0.35	0.02	0.00	-	-	-	7.17	0.00	7.17
M Wheat	1.58	1.52	0.40	-	0.00	0.12	0.01	0.00	3.50	0.13	3.62
Potato	-	0.00	0.00	-	0.01	0.00	0.00	0.00	0.00	0.01	0.02
Pulses	0.00	1.35	0.00	0.00	0.04	0.29	0.13	0.01	1.36	0.48	1.84
Oilseeds	0.18	0.75	0.00	0.00	0.03	0.03	0.05	0.00	0.93	0.11	1.04
Spices	0.07	0.05	-	-	0.00	0.00	0.00	-	0.13	0.00	0.13
Minor crops	0.35	0.71	0.00	-	0.00	0.01	0.00	-	1.06	0.01	1.07
Orchards	0.00	-	-	-	0.02	-	-	-	0.00	0.02	0.02
Total	13.21	11.89	0.78	0.04	0.52	0.84	0.34	0.04	25.93	1.74	27.66

PROT-3EA.wk1

NUTRIENT COMPOSITION : PROTEIN PER PERSON (Kg/person)

(Nutrient Composition Protein File : SWCPR-3E.wk1)

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SW3	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.51	0.75	0.14	-	-	1.40	1.40
M Aus	0.14	0.49	-	-	0.03	0.15	-	-	0.63	0.17	0.80
B Aman	-	-	-	-	-	0.24	0.83	0.27	-	1.34	1.34
L T Aman	0.01	0.37	0.02	-	0.01	0.08	-	-	0.40	0.10	0.50
M Aman	0.29	0.37	-	-	0.26	0.27	-	-	0.67	0.53	1.19
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.02	0.00	-	-	0.98	0.45	-	-	0.03	1.43	1.45
Rabi											
L Boro	-	-	-	0.04	-	-	-	0.03	0.04	0.03	0.07
M Boro	0.27	1.05	0.50	0.01	-	-	-	-	1.82	-	1.82
M Wheat	0.30	0.89	0.19	-	0.11	0.64	0.32	-	1.38	1.07	2.45
Potato	0.00	0.01	-	-	0.02	0.00	0.00	-	0.01	0.02	0.03
Pulses	0.01	0.07	0.01	-	0.47	1.95	0.77	0.06	0.09	3.25	3.34
Oilseeds	0.01	0.05	0.00	0.00	0.17	0.70	0.31	0.02	0.07	1.20	1.26
Spices	0.00	0.01	-	-	0.03	0.07	0.02	-	0.02	0.12	0.13
Minor crops	0.01	0.07	0.00	-	0.03	0.13	0.02	-	0.08	0.19	0.27
Orchards	-	-	-	-	0.10	-	-	-	-	0.10	0.10
Total	1.07	3.39	0.73	0.05	2.72	5.43	2.40	0.38	5.23	10.94	16.17

SW4	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.89	0.50	0.12	-	-	1.51	1.51
M Aus	0.26	0.36	-	-	0.02	-	-	-	0.62	0.02	0.65
B Aman	-	-	-	-	-	0.14	0.34	0.11	-	0.59	0.59
L T Aman	0.22	0.57	0.02	-	0.40	0.54	0.02	-	0.81	0.96	1.77
M Aman	1.02	0.60	-	-	0.82	0.17	-	-	1.62	0.99	2.61
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.41	0.10	-	-	0.70	0.10	-	-	0.51	0.80	1.31
Rabi											
L Boro	-	-	-	0.03	-	-	-	0.01	0.03	0.01	0.05
M Boro	1.00	1.16	0.29	0.03	0.00	-	-	-	2.48	0.00	2.48
M Wheat	0.79	0.96	0.10	-	0.07	0.20	0.36	0.11	1.85	0.74	2.59
Potato	0.01	0.05	0.00	-	0.02	0.01	0.00	0.00	0.06	0.03	0.09
Pulses	0.13	0.11	0.05	0.00	1.44	0.69	0.37	0.05	0.29	2.55	2.84
Oilseeds	0.07	0.10	0.02	0.00	0.48	0.55	0.18	0.01	0.19	1.23	1.41
Spices	0.01	0.01	-	-	0.01	0.01	-	-	0.01	0.02	0.03
Minor crops	0.16	0.28	0.01	-	0.03	0.05	-	-	0.45	0.09	0.53
Orchards	0.00	-	-	-	0.11	-	-	-	0.00	0.11	0.12
Total	4.09	4.29	0.49	0.06	5.00	2.95	1.40	0.31	8.93	9.66	18.58

NUTRIENT COMPOSITION : PROTEIN PER PERSON (Kg/person)

(Nutrient Composition Protein File : SWCPR-3E.wk1)

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SW5 CROP	IRRIGATED				NON-IRRIGATED				Total		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.72	0.92	0.18	-	-	1.82	1.82
M Aus	0.15	0.40	-	-	0.02	0.12	-	-	0.55	0.14	0.69
B Aman	-	-	-	-	-	0.27	0.94	0.31	-	1.51	1.51
L T Aman	0.05	0.46	0.02	-	0.09	0.26	0.03	-	0.53	0.39	0.92
M Aman	0.40	0.40	-	-	0.42	0.32	-	-	0.80	0.74	1.54
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.09	0.02	-	-	1.07	0.44	-	-	0.11	1.50	1.61
Rabi											
L Boro	-	-	-	0.06	-	-	-	0.05	0.06	0.05	0.10
M Boro	0.33	0.83	0.36	0.04	-	-	-	-	1.56	-	1.56
M Wheat	0.40	0.90	0.19	-	0.11	0.64	0.34	0.02	1.49	1.10	2.59
Potato	0.00	0.02	0.00	-	0.03	0.00	0.02	-	0.02	0.05	0.07
Pulses	0.02	0.07	0.01	-	0.68	1.90	0.83	0.08	0.10	3.49	3.58
Oilseeds	0.02	0.07	0.01	-	0.24	0.76	0.39	0.04	0.10	1.43	1.53
Spices	0.00	0.00	-	-	0.01	0.04	0.01	-	0.01	0.06	0.07
Minor crops	0.03	0.12	0.01	-	0.04	0.13	0.02	-	0.15	0.19	0.34
Orchards	-	-	-	-	0.13	-	-	-	-	0.13	0.13
Total	1.50	3.28	0.60	0.09	3.55	5.81	2.75	0.50	5.47	12.61	18.08

SW6 CROP	IRRIGATED				NON-IRRIGATED				Total		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.56	0.80	0.14	-	-	1.50	1.50
M Aus	0.16	0.52	-	-	0.03	0.16	-	-	0.68	0.19	0.87
B Aman	-	-	-	-	-	0.26	0.90	0.34	-	1.50	1.50
L T Aman	0.01	0.40	0.02	-	0.01	0.10	-	-	0.44	0.11	0.54
M Aman	0.31	0.41	-	-	0.29	0.30	-	-	0.73	0.59	1.32
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.02	0.00	-	-	1.04	0.46	-	-	0.02	1.51	1.53
Rabi											
L Boro	-	-	-	0.04	-	-	-	0.03	0.04	0.03	0.07
M Boro	0.28	1.14	0.49	0.04	-	-	-	-	1.96	-	1.96
M Wheat	0.33	1.01	0.22	-	0.12	0.70	0.32	0.03	1.56	1.16	2.73
Potato	-	0.02	-	-	0.02	0.00	0.00	-	0.02	0.02	0.04
Pulses	0.02	0.06	-	-	0.51	2.04	0.79	0.09	0.08	3.43	3.50
Oilseeds	0.01	0.05	-	-	0.18	0.74	0.33	0.04	0.06	1.28	1.35
Spices	0.00	0.00	-	-	0.01	0.04	0.01	-	0.01	0.06	0.07
Minor crops	0.01	0.12	0.01	-	0.04	0.16	0.03	-	0.14	0.23	0.37
Orchards	-	-	-	-	0.13	-	-	-	-	0.13	0.13
Total	1.15	3.75	0.74	0.08	2.95	5.76	2.51	0.53	5.72	11.75	17.47

NUTRIENT COMPOSITION : PROTEIN PER PERSON (Kg/person)

(Nutrient Composition Protein File : SWCPR-3E.wk1)

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SW7 CROP	IRRIGATED				NON-IRRIGATED				Total		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.22	0.55	0.68	-	-	1.45	1.45
M Aus	0.03	0.16	-	-	0.03	0.05	-	-	0.19	0.09	0.28
B Aman	-	-	-	-	-	0.06	1.07	0.94	-	2.08	2.08
L T Aman	0.00	0.18	0.06	-	0.01	0.01	-	-	0.24	0.01	0.25
M Aman	0.08	0.16	-	-	0.18	0.20	-	-	0.24	0.38	0.63
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.02	-	-	-	0.69	0.39	-	-	0.02	1.09	1.11
Rabi											
L Boro	-	-	-	0.02	-	-	-	0.16	0.02	0.16	0.17
M Boro	0.09	0.71	1.79	0.73	-	-	-	-	3.33	-	3.33
M Wheat	0.03	0.08	0.02	-	0.05	0.59	0.24	0.53	0.12	1.41	1.53
Potato	0.01	0.00	-	-	0.02	0.03	0.04	-	0.01	0.09	0.09
Pulses	0.01	0.09	0.03	-	0.24	1.37	1.33	0.58	0.12	3.52	3.64
Oilseeds	0.02	0.13	0.03	0.00	0.14	0.39	0.62	0.38	0.17	1.52	1.70
Spices	0.00	0.02	-	-	0.03	0.04	0.02	-	0.02	0.08	0.10
Minor crops	0.00	0.01	0.00	-	0.04	0.19	0.04	-	0.01	0.26	0.27
Orchards	-	-	-	-	0.09	-	-	-	-	0.09	0.09
Total	0.28	1.54	1.92	0.75	1.73	3.88	4.02	2.58	4.50	12.21	16.71

SW8 CROP	IRRIGATED				NON-IRRIGATED				Total		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.72	0.24	0.06	-	-	1.02	1.02
M Aus	0.44	0.47	-	-	0.04	-	-	-	0.91	0.04	0.95
B Aman	-	-	-	-	-	0.04	0.21	0.07	-	0.32	0.32
L T Aman	0.26	1.14	0.05	-	0.62	0.75	0.01	-	1.45	1.38	2.82
M Aman	1.94	1.13	-	-	0.57	0.25	-	-	3.08	0.82	3.89
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.43	0.11	-	-	0.22	0.03	-	-	0.54	0.25	0.79
Rabi											
L Boro	-	-	-	0.04	-	-	0.00	0.02	0.04	0.02	0.07
M Boro	1.88	2.78	0.91	0.07	0.00	-	-	-	5.64	0.00	5.64
M Wheat	1.22	1.12	0.18	-	0.16	0.26	0.10	0.02	2.52	0.55	3.07
Potato	0.05	0.12	0.01	-	0.00	0.01	0.00	0.00	0.18	0.01	0.19
Pulses	0.21	0.17	0.14	0.00	1.34	0.32	0.16	0.02	0.52	1.85	2.37
Oilseeds	0.27	0.51	0.07	0.00	0.57	0.44	0.11	0.01	0.84	1.14	1.98
Spices	0.02	0.02	-	-	0.02	0.01	-	-	0.04	0.04	0.08
Minor crops	0.19	0.39	0.01	-	0.04	0.04	-	-	0.59	0.07	0.66
Orchards	0.00	-	-	-	0.07	-	-	-	0.00	0.07	0.07
Total	6.91	7.96	1.36	0.11	4.38	2.39	0.66	0.14	16.35	7.57	23.91

NUTRIENT COMPOSITION : PROTEIN PER PERSON (Kg/person)

(Nutrient Composition Protein File : SWCPR-3E.wk1)

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SW9 CROP	IRRIGATED				NON-IRRIGATED				Total		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.58	0.25	0.18	-	-	1.01	1.01
M Aus	0.36	0.52	-	-	0.00	-	-	-	0.88	0.00	0.89
B Aman	-	-	-	-	-	0.01	0.35	0.17	-	0.53	0.53
L T Aman	0.13	0.81	0.06	-	0.92	0.67	0.04	-	1.01	1.63	2.63
M Aman	1.02	0.74	-	-	0.76	0.30	-	-	1.76	1.06	2.82
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.02	0.01	-	-	0.17	0.01	-	-	0.03	0.18	0.21
Rabi											
L Boro	-	-	-	0.01	-	-	0.00	0.01	0.01	0.01	0.02
M Boro	0.92	1.72	1.03	0.14	-	-	-	-	3.81	-	3.81
M Wheat	0.88	1.01	0.28	-	0.10	0.14	0.07	0.01	2.18	0.31	2.49
Potato	0.04	0.12	0.01	-	0.00	0.00	0.00	-	0.17	0.01	0.18
Pulses	0.06	0.08	0.13	-	1.05	0.13	0.38	0.26	0.27	1.83	2.10
Oilseeds	0.27	0.39	0.08	-	0.49	0.07	0.22	0.04	0.74	0.82	1.56
Spices	0.00	0.00	-	-	0.02	0.01	0.00	-	0.00	0.03	0.04
Minor crops	0.14	0.39	0.02	-	0.02	0.02	0.00	-	0.56	0.05	0.60
Orchards	-	-	-	-	0.07	-	-	-	-	0.07	0.07
Total	3.86	5.79	1.62	0.15	4.20	1.59	1.25	0.49	11.42	7.54	18.96

SW10 CROP	IRRIGATED				NON-IRRIGATED				Total		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.39	0.38	0.39	-	-	1.17	1.17
M Aus	0.15	0.10	-	-	0.01	0.00	-	-	0.25	0.01	0.27
B Aman	-	-	-	-	-	0.10	1.18	0.30	-	1.57	1.57
L T Aman	0.05	0.14	0.03	-	0.34	0.88	0.26	-	0.22	1.48	1.70
M Aman	0.28	0.19	-	-	0.44	0.30	-	-	0.47	0.75	1.22
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.08	0.03	-	-	0.29	0.13	-	-	0.12	0.42	0.54
Rabi											
L Boro	-	-	-	0.09	-	-	0.00	0.22	0.09	0.22	0.31
M Boro	0.20	0.29	0.46	0.19	-	-	-	-	1.14	-	1.14
M Wheat	0.36	0.25	0.11	-	0.03	0.06	0.03	0.01	0.72	0.14	0.86
Potato	0.01	0.01	0.01	-	0.04	0.00	0.15	-	0.02	0.19	0.21
Pulses	0.03	0.02	0.01	-	0.44	0.39	1.08	0.21	0.06	2.12	2.18
Oilseeds	0.06	0.13	0.05	-	0.38	0.53	1.04	0.21	0.24	2.17	2.41
Spices	0.00	0.00	-	-	0.00	0.01	0.00	-	0.00	0.01	0.01
Minor crops	0.02	0.10	0.01	-	0.02	0.06	0.02	-	0.13	0.10	0.23
Orchards	-	-	-	-	0.10	-	-	-	-	0.10	0.10
Total	1.24	1.27	0.67	0.28	2.48	2.85	4.17	0.94	3.46	10.44	13.90

NUTRIENT COMPOSITION : PROTEIN PER PERSON (Kg/person)

(Nutrient Composition Protein File : SWCPR-3E.wk1)

10-04-93

SW11 CROP	IRRIGATED				NON-IRRIGATED				Total		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.04	0.17	0.00	-	-	0.22	0.22
M Aus	0.04	0.28	-	-	-	-	-	-	0.32	-	0.32
B Aman	-	-	-	-	-	-	0.09	0.00	-	0.09	0.09
L T Aman	0.02	0.68	0.00	-	0.63	5.38	0.04	-	0.70	6.04	6.74
M Aman	0.17	0.84	-	-	0.36	1.30	-	-	1.01	1.66	2.67
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.01	-	-	-	0.07	-	-	-	0.01	0.07	0.08
Rabi											
L Boro	-	-	-	0.04	-	-	0.03	-	0.04	0.03	0.07
M Boro	0.16	1.98	0.07	0.01	-	-	-	-	2.21	-	2.21
M Wheat	0.10	0.58	0.01	-	0.00	0.00	0.00	0.00	0.68	0.01	0.69
Potato	0.00	0.03	0.00	-	-	0.08	-	-	0.03	0.08	0.11
Pulses	0.00	0.00	0.00	-	0.21	1.28	0.03	0.00	0.00	1.53	1.54
Oilseeds	0.01	0.02	0.00	-	0.21	1.59	0.04	0.00	0.03	1.84	1.87
Spices	0.00	-	-	-	0.02	0.09	0.00	-	0.00	0.11	0.11
Minor crops	0.01	0.01	0.00	-	0.02	0.25	-	-	0.02	0.26	0.28
Orchards	-	-	-	-	0.14	-	-	-	-	0.14	0.14
Total	0.51	4.41	0.09	0.05	1.70	10.14	0.23	0.01	5.06	12.08	17.13

SW12 CROP	IRRIGATED				NON-IRRIGATED				Total		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.06	0.07	0.03	-	-	0.16	0.16
M Aus	0.03	0.08	-	-	-	-	-	-	0.12	-	0.12
B Aman	-	-	-	-	-	0.00	0.07	0.03	-	0.10	0.10
L T Aman	0.01	0.13	0.01	-	0.24	1.42	0.02	-	0.15	1.68	1.82
M Aman	0.07	0.16	-	-	0.15	0.36	-	-	0.23	0.51	0.74
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.00	0.00	-	-	0.03	0.00	-	-	0.00	0.04	0.04
Rabi											
L Boro	-	-	-	0.01	-	-	0.01	0.00	0.01	0.01	0.01
M Boro	0.05	0.31	0.08	0.01	-	-	-	-	0.46	-	0.46
M Wheat	0.07	0.15	0.03	-	-	-	0.01	0.00	0.25	0.01	0.27
Potato	0.00	0.01	0.00	-	0.00	0.01	0.00	-	0.02	0.01	0.03
Pulses	0.01	0.01	0.01	-	0.09	0.33	0.07	0.05	0.03	0.54	0.57
Oilseeds	0.02	0.02	0.01	-	0.14	0.66	0.07	0.01	0.05	0.88	0.93
Spices	0.00	0.00	-	-	0.00	0.01	0.00	-	0.00	0.01	0.01
Minor crops	0.01	0.04	0.00	-	0.00	0.04	0.00	-	0.05	0.04	0.09
Orchards	-	-	-	-	0.03	-	-	-	-	0.03	0.03
Total	0.28	0.93	0.14	0.02	0.75	2.89	0.29	0.09	1.37	4.02	5.39

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PROT-3EA.wk1

NUTRIENT COMPOSITION : PROTEIN PER PERSON (Kg/person)

(Nutrient Composition Protein File : SWCPR-3E.wk1)

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SW13 CROP	IRRIGATED				NON-IRRIGATED				Totals		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.17	0.60	0.39	-	-	1.16	1.16
M Aus	0.04	0.05	-	-	0.01	0.01	-	-	0.09	0.02	0.11
B Aman	-	-	-	-	-	0.18	0.76	0.51	-	1.45	1.45
L T Aman	0.01	0.10	0.02	-	0.19	2.03	0.11	0.00	0.13	2.33	2.45
M Aman	0.08	0.13	-	-	0.35	0.79	-	0.00	0.22	1.14	1.36
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.01	0.01	-	-	0.27	0.26	-	-	0.03	0.54	0.56
Rabi											
L Boro	-	0.00	0.02	0.04	-	-	0.00	0.09	0.07	0.09	0.16
M Boro	0.06	0.25	0.36	0.19	-	-	-	-	0.85	-	0.85
M Wheat	0.10	0.10	0.03	-	0.02	0.31	0.01	0.24	0.22	0.57	0.79
Potato	0.00	0.01	0.00	-	0.06	0.14	0.10	-	0.01	0.29	0.30
Pulses	0.00	0.00	-	-	0.16	1.66	0.80	0.32	0.00	2.94	2.95
Oilseeds	0.02	0.07	0.02	-	0.17	1.25	0.74	0.30	0.11	2.46	2.57
Spices	0.00	0.00	-	-	0.00	0.01	0.00	-	0.00	0.01	0.01
Minor crops	0.00	0.05	0.00	-	0.02	0.12	0.03	-	0.06	0.17	0.23
Orchards	-	-	-	-	0.23	-	-	-	-	0.23	0.23
Total	0.33	0.76	0.46	0.23	1.64	7.37	2.93	1.48	1.78	13.41	15.18

SW14 CROP	IRRIGATED				NON-IRRIGATED				Total		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.04	0.22	0.02	-	-	0.28	0.28
M Aus	0.01	0.04	-	-	-	-	-	-	0.04	-	0.04
B Aman	-	-	-	-	-	0.02	0.14	0.01	-	0.16	0.16
L T Aman	0.00	0.09	0.00	-	0.65	5.78	0.05	0.00	0.09	6.48	6.57
M Aman	0.02	0.11	-	-	0.39	1.41	-	0.00	0.13	1.79	1.92
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.00	0.00	-	-	0.08	0.02	-	-	0.00	0.10	0.10
Rabi											
L Boro	-	-	0.00	0.01	-	-	0.03	0.01	0.01	0.04	0.04
M Boro	0.02	0.26	0.01	0.00	-	-	-	-	0.29	-	0.29
M Wheat	0.01	0.08	0.00	-	-	0.01	-	-	0.09	0.01	0.11
Potato	0.00	0.00	0.00	-	0.00	0.09	0.01	-	0.00	0.10	0.10
Pulses	-	-	-	-	0.21	1.54	0.08	0.01	-	1.84	1.84
Oilseeds	0.00	0.00	0.00	-	0.20	1.62	0.07	0.01	0.00	1.91	1.91
Spices	0.00	0.00	-	-	0.00	0.02	-	-	0.00	0.02	0.02
Minor crops	0.00	0.00	0.00	-	0.02	0.25	0.00	-	0.00	0.26	0.27
Orchards	-	-	-	-	0.15	-	-	-	-	0.15	0.15
Total	0.06	0.58	0.02	0.01	1.76	10.96	0.40	0.04	0.67	13.16	13.83

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PROT-3EA.wk1

NUTRIENT COMPOSITION : PROTEIN PER PERSON (Kg/person)

(Nutrient Composition Protein File : SWCPR-3E.wk1)

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<i>SW Total</i>	<i>IRRIGATED</i>				<i>NON-IRRIGATED</i>				<i>Total</i>		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
<i>Kharif</i>											
B Aus	-	-	-	-	6.33	6.65	2.93	-	-	15.91	15.91
M Aus	2.79	5.66	-	-	0.20	0.50	-	-	8.44	0.70	9.14
B Aman	-	-	-	-	-	1.34	7.42	3.15	-	11.91	11.91
L T Aman	1.11	7.59	0.35	-	4.12	17.91	0.58	0.00	9.05	22.61	31.66
M Aman	10.67	7.43	-	-	5.54	6.18	-	0.00	18.10	11.72	29.81
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	4.51	0.99	-	-	6.16	2.76	-	-	5.50	8.93	14.43
<i>Rabi</i>											
L Boro	-	0.00	0.02	0.47	-	-	0.07	0.68	0.50	0.75	1.25
M Boro	9.55	16.20	6.83	1.47	0.17	-	-	-	34.06	0.17	34.22
M Wheat	7.75	10.46	2.07	-	0.83	4.22	1.80	1.02	20.28	7.88	28.16
Potato	0.12	0.43	0.05	-	0.24	0.38	0.33	0.00	0.59	0.95	1.54
Pulses	0.72	2.08	0.40	0.00	7.52	14.97	7.28	1.81	3.20	31.58	34.78
Oilseeds	1.07	2.53	0.30	0.00	3.71	9.44	4.32	1.12	3.89	18.59	22.48
Spices	0.15	0.12	-	-	0.20	0.42	0.05	-	0.28	0.67	0.95
Minor crops	1.16	2.31	0.07	-	0.32	1.73	0.16	-	3.54	2.22	5.76
Orchards	0.13	-	-	-	1.41	-	-	-	0.13	1.41	1.54
Total	39.72	55.80	10.09	1.95	36.76	66.50	24.95	7.79	107.56	136.00	243.56

<i>SW Avg</i>	<i>IRRIGATED</i>				<i>NON-IRRIGATED</i>				<i>Total</i>		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
<i>Kharif</i>											
B Aus	-	-	-	-	0.45	0.48	0.21	-	-	1.14	1.14
M Aus	0.20	0.40	-	-	0.01	0.04	-	-	0.60	0.05	0.65
B Aman	-	-	-	-	-	0.10	0.53	0.22	-	0.85	0.85
L T Aman	0.08	0.54	0.02	-	0.29	1.28	0.04	0.00	0.65	1.61	2.26
M Aman	0.76	0.53	-	-	0.40	0.44	-	0.00	1.29	0.84	2.13
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.32	0.07	-	-	0.44	0.20	-	-	0.39	0.64	1.03
<i>Rabi</i>											
L Boro	-	0.00	0.00	0.03	-	-	0.00	0.05	0.04	0.05	0.09
M Boro	0.68	1.16	0.49	0.10	0.01	-	-	-	2.43	0.01	2.44
M Wheat	0.55	0.75	0.15	-	0.06	0.30	0.13	0.07	1.45	0.56	2.01
Potato	0.01	0.03	0.00	-	0.02	0.03	0.02	0.00	0.04	0.07	0.11
Pulses	0.05	0.15	0.03	0.00	0.54	1.07	0.52	0.13	0.23	2.26	2.48
Oilseeds	0.08	0.18	0.02	0.00	0.27	0.67	0.31	0.08	0.28	1.33	1.61
Spices	0.01	0.01	-	-	0.01	0.03	0.00	-	0.02	0.05	0.07
Minor crops	0.08	0.17	0.01	-	0.02	0.12	0.01	-	0.25	0.16	0.41
Orchards	0.01	-	-	-	0.10	-	-	-	0.01	0.10	0.11
Total	2.84	3.99	0.72	0.14	2.63	4.75	1.78	0.56	7.68	9.71	17.40

Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

PROT-3EA.wk1

NUTRIENT COMPOSITION : PROTEIN PER PERSON (Kg/person)

(Nutrient Composition Protein File : SWCPR-3E.wk1)

10-04-93

SC1	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.27	0.75	0.53	-	-	1.55	1.55
M Aus	0.04	0.29	-	-	0.03	0.04	-	-	0.33	0.08	0.41
B Aman	-	-	-	-	-	0.10	0.99	0.15	-	1.25	1.25
L T Aman	0.00	0.21	0.05	-	0.02	0.00	-	-	0.26	0.02	0.28
M Aman	0.09	0.14	-	-	0.16	0.08	-	-	0.24	0.24	0.47
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.04	-	-	-	1.01	0.60	-	-	0.04	1.62	1.65
Rabi											
L Boro	-	-	-	0.03	-	-	-	0.18	0.03	0.18	0.20
M Boro	0.11	0.71	1.69	0.11	-	-	-	-	2.62	-	2.62
M Wheat	-	-	-	-	0.05	0.60	0.54	0.01	-	1.19	1.19
Potato	0.01	-	-	-	0.00	0.03	0.03	-	0.01	0.06	0.07
Pulses	0.01	0.18	0.07	-	0.30	2.06	1.39	0.14	0.27	3.88	4.15
Oilseeds	0.02	0.14	0.08	0.01	0.20	0.96	0.72	0.04	0.24	1.93	2.18
Spices	0.02	0.10	-	-	0.09	0.09	0.06	-	0.12	0.24	0.35
Minor crops	-	-	-	-	0.04	0.22	0.03	-	-	0.29	0.29
Orchards	-	-	-	-	0.09	-	-	-	-	0.09	0.09
Total	0.35	1.77	1.89	0.14	2.25	5.55	4.29	0.51	4.15	12.60	16.75

SC2	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.23	0.92	0.13	-	-	1.28	1.28
M Aus	0.01	0.07	-	-	0.08	0.23	-	-	0.08	0.31	0.40
B Aman	-	-	-	-	-	0.48	1.11	0.18	-	1.78	1.78
L T Aman	0.01	0.40	0.02	-	0.13	0.92	0.03	-	0.43	1.08	1.51
M Aman	0.15	0.51	-	-	0.11	0.12	-	-	0.67	0.23	0.90
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.01	-	-	-	0.67	0.61	-	-	0.01	1.28	1.29
Rabi											
L Boro	-	-	-	0.01	-	-	-	0.13	0.01	0.13	0.14
M Boro	0.26	2.06	0.68	0.08	-	-	-	-	3.09	-	3.09
M Wheat	-	-	-	-	0.06	0.60	0.38	0.02	-	1.05	1.05
Potato	0.00	-	-	-	0.01	0.05	0.01	-	0.00	0.07	0.07
Pulses	0.06	0.05	0.02	-	0.64	1.58	1.39	0.11	0.13	3.71	3.84
Oilseeds	0.05	0.72	0.02	0.00	0.15	0.18	1.05	0.03	0.79	1.42	2.21
Spices	0.00	0.00	-	-	0.01	0.02	0.00	-	0.00	0.03	0.03
Minor crops	-	-	-	-	0.04	0.25	0.03	-	-	0.32	0.32
Orchards	-	-	-	-	0.13	-	-	-	-	0.13	0.13
Total	0.55	3.82	0.75	0.09	2.25	5.96	4.13	0.46	5.22	12.80	18.02

245

Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

PROT-3EA.wk1

NUTRIENT COMPOSITION : PROTEIN PER PERSON (Kg/person)

(Nutrient Composition Protein File : SWCPR-3E.wk1)

10-04-93

SC3	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.14	0.70	0.27	-	-	1.12	1.12
M Aus	0.01	0.06	-	-	0.06	0.14	-	-	0.07	0.21	0.28
B Aman	-	-	-	-	-	0.12	0.77	0.44	-	1.33	1.33
L T Aman	0.01	0.44	0.07	-	0.06	0.42	0.00	-	0.51	0.48	0.99
M Aman	0.14	0.57	-	-	0.22	0.30	-	-	0.71	0.52	1.23
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.01	-	-	-	0.50	0.47	-	-	0.01	0.96	0.97
Rabi											
L Boro	-	-	-	0.15	-	-	-	0.06	0.15	0.06	0.21
M Boro	0.25	2.28	2.11	0.02	-	-	-	-	4.67	-	4.67
M Wheat	-	-	-	-	0.15	0.17	0.08	0.00	-	0.40	0.40
Potato	0.00	-	-	-	0.02	0.03	0.02	-	0.00	0.06	0.06
Pulses	0.01	0.04	0.02	-	0.16	0.95	0.59	0.11	0.06	1.82	1.88
Oilseeds	0.06	0.81	0.01	0.00	0.05	0.32	0.29	0.02	0.88	0.68	1.56
Spices	0.00	0.00	-	-	0.00	0.01	0.00	-	0.00	0.02	0.02
Minor crops	-	-	-	-	0.02	0.13	0.02	-	-	0.17	0.17
Orchards	-	-	-	-	0.10	-	-	-	-	0.10	0.10
Total	0.48	4.20	2.21	0.17	1.49	3.77	2.04	0.63	7.06	7.93	14.99

SC4	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.18	0.90	0.59	-	-	1.68	1.68
M Aus	0.00	0.00	-	-	0.06	0.14	-	-	0.00	0.20	0.20
B Aman	-	-	-	-	-	0.11	1.07	1.01	-	2.18	2.18
L T Aman	0.01	0.28	0.05	-	0.08	0.57	0.00	0.00	0.34	0.65	0.98
M Aman	0.06	0.30	-	-	0.29	0.42	-	0.00	0.36	0.71	1.08
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.00	0.00	-	-	0.53	0.50	-	-	0.00	1.04	1.04
Rabi											
L Boro	-	-	0.00	0.07	-	-	-	0.09	0.07	0.09	0.17
M Boro	0.10	0.95	1.06	0.22	-	-	-	-	2.33	-	2.33
M Wheat	0.00	0.00	-	-	0.18	0.27	-	0.32	0.00	0.77	0.77
Potato	0.00	0.00	0.00	-	0.03	0.04	0.04	-	0.00	0.11	0.11
Pulses	-	-	-	-	0.17	1.00	0.86	0.42	-	2.45	2.45
Oilseeds	0.03	0.42	0.00	-	0.07	0.28	0.43	0.24	0.45	1.02	1.47
Spices	0.00	0.00	-	-	0.00	0.01	0.00	-	0.00	0.02	0.02
Minor crops	0.00	0.00	0.00	-	0.03	0.19	0.04	-	0.00	0.26	0.26
Orchards	-	-	-	-	0.14	-	-	-	-	0.14	0.14
Total	0.20	1.94	1.11	0.30	1.77	4.44	3.04	2.08	3.55	11.32	14.87

246

Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

PROT-3EA.wk1

NUTRIENT COMPOSITION : PROTEIN PER PERSON (Kg/person)

(Nutrient Composition Protein File : SWCPR-3E.wk1)

10-04-93

SC5 CROP	IRRIGATED				NON-IRRIGATED				Total		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
<i>Kharif</i>											
B Aus	-	-	-	-	0.11	0.30	0.04	-	-	0.45	0.45
M Aus	0.37	0.16	-	-	0.02	0.04	-	-	0.53	0.06	0.59
B Aman	-	-	-	-	-	0.02	0.10	0.07	-	0.19	0.19
L T Aman	0.17	0.81	0.08	-	0.13	0.58	0.00	0.00	1.06	0.71	1.78
M Aman	2.21	0.90	-	-	0.16	0.30	-	0.00	3.12	0.46	3.58
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.00	0.00	-	-	0.14	0.10	-	-	0.00	0.24	0.24
<i>Rabi</i>											
L Boro	-	0.27	0.00	0.17	-	-	-	0.01	0.45	0.01	0.45
M Boro	2.64	2.10	1.71	0.00	-	-	-	-	6.45	-	6.45
M Wheat	0.28	0.02	-	-	0.02	0.03	0.00	0.00	0.30	0.06	0.35
Potato	0.37	0.18	0.00	-	0.00	0.01	0.00	-	0.56	0.01	0.57
Pulses	0.00	0.01	-	-	0.10	0.44	0.07	0.02	0.01	0.63	0.64
Oilseeds	0.51	0.92	0.00	-	0.02	0.22	0.03	0.00	1.43	0.28	1.71
Spices	0.02	0.00	-	-	0.00	0.00	0.00	-	0.02	0.01	0.02
Minor crops	0.01	0.02	0.00	-	0.01	0.05	0.00	-	0.03	0.06	0.09
Orchards	-	-	-	-	0.04	-	-	-	-	0.04	0.04
Total	6.59	5.39	1.79	0.17	0.76	2.10	0.25	0.10	13.95	3.20	17.15

SC6 CROP	IRRIGATED				NON-IRRIGATED				Total		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
<i>Kharif</i>											
B Aus	-	-	-	-	0.28	1.04	0.03	-	-	1.35	1.35
M Aus	0.03	0.01	-	-	0.08	0.21	-	-	0.03	0.29	0.32
B Aman	-	-	-	-	-	0.46	0.92	0.19	-	1.57	1.57
L T Aman	0.02	0.41	0.01	-	0.26	1.56	0.04	-	0.45	1.86	2.31
M Aman	0.26	0.45	-	-	0.19	0.31	-	-	0.71	0.50	1.22
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.00	-	-	-	0.53	0.52	-	-	0.00	1.05	1.05
<i>Rabi</i>											
L Boro	-	0.02	0.00	0.01	-	-	-	0.09	0.03	0.09	0.12
M Boro	0.34	1.37	0.25	0.04	-	-	-	-	2.00	-	2.00
M Wheat	0.02	0.00	-	-	0.06	0.46	0.25	0.02	0.02	0.78	0.80
Potato	0.02	0.01	-	-	0.01	0.04	0.00	-	0.04	0.06	0.09
Pulses	0.05	0.00	0.00	-	0.65	1.40	1.10	0.08	0.05	3.23	3.28
Oilseeds	0.07	0.57	0.01	-	0.11	0.16	0.84	0.02	0.64	1.14	1.78
Spices	0.00	0.00	-	-	0.01	0.02	0.00	-	0.00	0.03	0.03
Minor crops	0.00	0.00	0.00	-	0.04	0.24	0.02	-	0.00	0.30	0.30
Orchards	-	-	-	-	0.13	-	-	-	-	0.13	0.13
Total	0.82	2.84	0.27	0.05	2.35	6.42	3.20	0.40	3.97	12.36	16.33

NUTRIENT COMPOSITION : PROTEIN PER PERSON (Kg/person)

(Nutrient Composition Prptein File : SWCPR-3E.wk1)

10-04-93

SC7 CROP	IRRIGATED				NON-IRRIGATED				Totals		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.12	0.29	-	-	-	0.40	0.40
M Aus	0.63	0.36	-	-	0.02	0.03	-	-	0.99	0.05	1.04
B Aman	-	-	-	-	-	0.01	0.00	0.00	-	0.01	0.01
L T Aman	0.27	0.56	0.00	-	0.19	0.80	0.00	-	0.83	1.00	1.83
M Aman	3.64	0.63	-	-	0.15	0.36	-	-	4.27	0.51	4.78
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.02	-	-	-	0.10	0.04	-	-	0.02	0.13	0.15
Rabi											
L Boro	-	0.45	0.01	-	-	-	-	0.00	0.46	0.00	0.46
M Boro	4.25	0.60	0.02	0.00	-	-	-	-	4.86	-	4.86
M Wheat	0.53	0.08	-	-	0.00	0.04	0.00	0.00	0.61	0.04	0.65
Potato	0.56	0.30	-	-	0.00	0.01	-	-	0.86	0.01	0.87
Pulses	0.02	0.03	0.00	-	0.09	0.46	0.00	0.00	0.05	0.56	0.61
Oilseeds	0.67	0.04	0.00	-	0.02	0.22	0.00	0.00	0.72	0.24	0.96
Spices	0.03	0.00	-	-	0.00	0.00	0.00	-	0.03	0.01	0.04
Minor crops	0.05	0.08	0.00	-	0.01	0.05	0.00	-	0.13	0.06	0.18
Orchards	-	-	-	-	0.03	-	-	-	-	0.03	0.03
Total	10.66	3.14	0.03	0.00	0.73	2.30	0.01	0.00	13.83	3.04	16.88

SC8 CROP	IRRIGATED				NON-IRRIGATED				Total		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.32	0.94	-	-	-	1.25	1.25
M Aus	0.04	0.03	-	-	0.02	0.08	-	-	0.07	0.10	0.17
B Aman	-	-	-	-	-	0.01	0.02	0.00	-	0.03	0.03
L T Aman	0.03	0.22	0.01	-	1.12	5.33	0.19	-	0.26	6.65	6.91
M Aman	0.76	0.21	-	-	0.14	0.19	-	-	0.98	0.33	1.31
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.03	-	-	-	0.09	0.01	-	-	0.03	0.10	0.13
Rabi											
L Boro	-	0.02	0.02	-	-	-	-	0.00	0.05	0.00	0.05
M Boro	0.58	0.40	0.03	0.00	-	-	-	-	1.01	-	1.01
M Wheat	0.20	0.08	-	-	0.00	0.01	0.00	0.00	0.27	0.01	0.28
Potato	-	0.01	-	-	0.02	0.00	-	-	0.01	0.02	0.03
Pulses	0.01	0.04	0.00	-	0.28	2.37	0.06	0.00	0.05	2.71	2.77
Oilseeds	0.02	0.07	0.00	-	0.20	0.84	0.03	0.00	0.08	1.07	1.15
Spices	0.00	0.00	-	-	0.00	0.01	0.00	-	0.00	0.02	0.02
Minor crops	0.02	0.06	0.00	-	0.02	0.16	0.00	-	0.08	0.18	0.26
Orchards	-	-	-	-	0.14	-	-	-	-	0.14	0.14
Total	1.70	1.14	0.06	0.00	2.36	9.94	0.31	0.00	2.90	12.62	15.52

Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

PRGT-3EA.wk1

NUTRIENT COMPOSITION : PROTEIN PER PERSON (Kg/person)

(Nutrient Composition Protein File : SWCPR-3E.wk1)

10-04-93

SC9 CROP	IRRIGATED				NON-IRRIGATED				Total		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.36	1.31	-	-	-	1.66	1.66
M Aus	0.02	0.03	-	-	0.03	0.10	-	-	0.05	0.13	0.19
B Aman	-	-	-	-	-	0.01	0.01	-	-	0.03	0.03
L T Aman	0.01	0.11	0.00	-	1.34	6.45	0.18	-	0.13	7.97	8.10
M Aman	0.31	0.11	-	-	0.23	0.86	-	-	0.42	1.09	1.52
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.01	-	-	-	0.10	-	-	-	0.01	0.10	0.11
Rabi											
L Boro	-	0.01	0.01	-	-	-	-	-	0.02	-	0.02
M Boro	0.23	0.19	0.01	-	-	-	-	-	0.43	-	0.43
M Wheat	0.08	0.04	-	-	-	0.23	-	-	0.12	0.23	0.35
Potato	0.00	0.01	-	-	0.03	0.03	-	-	0.01	0.06	0.06
Pulses	0.01	0.01	0.00	-	0.27	2.66	0.04	-	0.02	2.97	2.99
Oilseeds	0.01	0.02	-	-	0.17	0.89	0.01	-	0.03	1.08	1.10
Spices	0.00	0.00	-	-	0.00	0.02	0.00	-	0.00	0.02	0.02
Minor crops	0.01	0.03	0.00	-	0.02	0.18	-	-	0.04	0.20	0.24
Orchards	-	-	-	-	0.20	-	-	-	-	0.20	0.20
Total	0.69	0.56	0.02	-	2.76	12.74	0.24	-	1.28	15.74	17.02

SC10 CROP	IRRIGATED				NON-IRRIGATED				Total		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.28	1.47	-	-	-	1.75	1.75
M Aus	0.05	0.14	-	-	0.05	0.11	-	-	0.19	0.15	0.34
B Aman	-	-	-	-	-	0.04	0.00	-	-	0.05	0.05
L T Aman	0.02	0.25	0.00	-	1.07	5.26	0.04	-	0.27	6.37	6.65
M Aman	0.34	0.26	-	-	0.38	2.07	-	-	0.60	2.44	3.04
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.01	-	-	-	0.11	0.02	-	-	0.01	0.13	0.14
Rabi											
L Boro	-	0.01	0.00	-	-	-	-	-	0.02	-	0.02
M Boro	0.24	0.30	0.01	-	-	-	-	-	0.54	-	0.54
M Wheat	0.07	0.06	-	-	-	0.66	-	-	0.13	0.66	0.79
Potato	0.02	0.05	-	-	0.02	0.09	-	-	0.07	0.10	0.18
Pulses	0.02	0.03	0.00	-	0.28	3.59	0.01	-	0.05	3.88	3.93
Oilseeds	0.04	0.04	-	-	0.10	1.00	0.00	-	0.07	1.11	1.18
Spices	0.00	0.00	-	-	0.00	0.02	0.00	-	0.00	0.02	0.03
Minor crops	0.04	0.06	0.00	-	0.01	0.14	-	-	0.10	0.15	0.25
Orchards	-	-	-	-	0.24	-	-	-	-	0.24	0.24
Total	0.85	1.21	0.01	-	2.54	14.46	0.06	-	2.07	17.06	19.13

PROT-3EA.wk1

NUTRIENT COMPOSITION : PROTEIN PER PERSON (Kg/person)

(Nutrient Composition Protein File : SWCPR-3E.wk1)

10-04-93

SC11 CROP	IRRIGATED				NON-IRRIGATED				Total		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.20	0.85	-	-	-	1.05	1.05
M Aus	0.42	0.68	-	-	0.04	0.07	-	-	1.10	0.11	1.21
B Aman	-	-	-	-	-	0.02	0.00	-	-	0.02	0.02
L T Aman	0.15	0.91	0.00	-	0.50	2.36	0.00	-	1.06	2.85	3.91
M Aman	2.12	0.95	-	-	0.28	1.16	-	-	3.07	1.44	4.50
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.02	-	-	-	0.12	0.04	-	-	0.02	0.17	0.19
Rabi											
L Boro	-	0.24	0.00	-	-	-	-	-	0.25	-	0.25
M Boro	2.36	1.31	0.00	-	-	-	-	-	3.67	-	3.67
M Wheat	0.31	0.18	-	-	-	0.31	-	-	0.49	0.31	0.80
Potato	0.23	0.21	-	-	0.01	0.04	-	-	0.44	0.05	0.49
Pulses	0.05	0.09	0.00	-	0.18	1.67	0.00	-	0.14	1.85	1.99
Oilseeds	0.39	0.07	-	-	0.04	0.45	0.00	-	0.46	0.49	0.95
Spices	0.02	0.00	-	-	0.00	0.01	0.00	-	0.02	0.01	0.03
Minor crops	0.10	0.14	0.00	-	0.01	0.08	-	-	0.23	0.09	0.32
Orchards	-	-	-	-	0.12	-	-	-	-	0.12	0.12
Total	6.17	4.78	0.00	-	1.49	7.07	0.00	-	10.95	8.55	19.51

SC12 CROP	IRRIGATED				NON-IRRIGATED				Total		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.26	0.98	0.00	-	-	1.24	1.24
M Aus	0.05	0.08	-	-	0.03	0.07	-	-	0.12	0.10	0.22
B Aman	-	-	-	-	-	0.02	0.01	0.00	-	0.03	0.03
L T Aman	0.03	0.22	0.00	-	0.93	4.46	0.11	0.00	0.25	5.49	5.75
M Aman	0.57	0.22	-	-	0.21	0.85	-	0.00	0.78	1.06	1.85
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.02	0.00	-	-	0.09	0.01	-	-	0.02	0.10	0.13
Rabi											
L Boro	-	0.02	0.01	0.00	-	-	-	0.00	0.04	0.00	0.04
M Boro	0.42	0.33	0.02	0.00	-	-	-	-	0.77	-	0.77
M Wheat	0.13	0.07	-	-	0.00	0.23	-	-	0.20	0.23	0.44
Potato	0.01	0.02	0.00	-	0.02	0.03	0.00	-	0.03	0.05	0.08
Pulses	0.01	0.04	0.00	-	0.26	2.67	0.03	0.00	0.05	2.97	3.02
Oilseeds	0.02	0.03	0.00	-	0.09	0.55	0.01	0.00	0.05	0.65	0.69
Spices	0.00	0.00	-	-	0.00	0.01	0.00	-	0.00	0.02	0.02
Minor crops	0.02	0.05	0.00	-	0.01	0.13	0.00	-	0.08	0.14	0.22
Orchards	-	-	-	-	0.15	-	-	-	-	0.15	0.15
Total	1.28	1.07	0.04	0.00	2.06	10.03	0.15	0.00	2.40	12.24	14.64

250

Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

PROT-3E.wk1

NUTRIENT COMPOSITION : PROTEIN PER PERSON (Kg/person)

(Nutrient Composition Protein File : SWCPR-3E.wk1)

10-04-93

SC13 CROP	IRRIGATED				NON-IRRIGATED				Total		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.49	1.45	-	-	-	1.95	1.95
M Aus	0.02	0.02	-	-	0.03	0.12	-	-	0.04	0.15	0.19
B Aman	-	-	-	-	-	-	0.02	-	-	0.02	0.02
L T Aman	0.02	0.12	0.00	-	1.76	8.35	0.30	-	0.14	10.41	10.54
M Aman	0.41	0.11	-	-	0.22	0.30	-	-	0.53	0.52	1.05
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.02	-	-	-	0.14	-	-	-	0.02	0.14	0.15
Rabi											
L Boro	-	0.01	0.01	-	-	-	-	-	0.02	-	0.02
M Boro	0.31	0.21	0.01	-	-	-	-	-	0.54	-	0.54
M Wheat	0.11	0.04	-	-	-	-	-	-	0.15	-	0.15
Potato	-	0.00	-	-	0.04	-	-	-	0.00	0.04	0.04
Pulses	0.01	0.02	0.00	-	0.41	3.53	0.07	-	0.03	4.01	4.04
Oilseeds	0.01	0.03	-	-	0.31	1.32	0.02	-	0.04	1.64	1.68
Spices	0.00	0.00	-	-	0.00	0.02	0.00	-	0.00	0.03	0.03
Minor crops	0.01	0.05	0.00	-	0.04	0.24	-	-	0.07	0.28	0.35
Orchards	-	-	-	-	0.21	-	-	-	-	0.21	0.21
Total	0.92	0.61	0.03	-	3.65	15.33	0.40	-	1.57	19.38	20.96

SC Total CROP	IRRIGATED				NON-IRRIGATED				Total		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	3.23	11.89	1.60	-	-	16.72	16.72
M Aus	1.68	1.92	-	-	0.57	1.39	-	-	3.60	1.95	5.56
B Aman	-	-	-	-	-	1.40	5.03	2.04	-	8.48	8.48
L T Aman	0.75	4.94	0.30	-	7.59	37.05	0.90	0.00	5.99	45.53	51.53
M Aman	11.09	5.37	-	-	2.74	7.32	-	0.00	16.46	10.06	26.52
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.19	0.00	-	-	4.13	2.92	-	-	0.19	7.05	7.24
Rabi											
L Boro	-	1.06	0.08	0.44	-	-	-	0.55	1.58	0.55	2.13
M Boro	12.09	12.81	7.59	0.48	-	-	-	-	32.97	-	32.97
M Wheat	1.73	0.56	-	-	0.52	3.61	1.25	0.36	2.29	5.73	8.02
Potato	1.24	0.79	0.00	-	0.20	0.39	0.10	-	2.04	0.68	2.72
Pulses	0.25	0.55	0.12	-	3.78	24.40	5.60	0.88	0.92	34.66	35.58
Oilseeds	1.88	3.87	0.12	0.01	1.55	7.40	3.44	0.35	5.88	12.73	18.62
Spices	0.10	0.11	-	-	0.13	0.26	0.07	-	0.21	0.45	0.66
Minor crops	0.25	0.49	0.01	-	0.30	2.07	0.13	-	0.76	2.50	3.26
Orchards	-	-	-	-	1.73	-	-	-	-	1.73	1.73
Total	31.26	32.48	8.23	0.93	26.46	100.10	18.11	4.18	72.90	148.86	221.76

Irrigated Jute and B Aman changed to rainfed and total irrigated and rainfed areas adjusted to 1991 estimates

PROT-3EA.wk1

NUTRIENT COMPOSITION : PROTEIN PER PERSON (Kg/person)

(Nutrient Composition Protein File : SWCPR-3E.wk1)

10-04-93

TOTAL CROP	IRRIGATED				NON-IRRIGATED				Total		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	9.56	18.55	4.52	-	-	32.63	32.63
M Aus	4.47	7.58	-	-	0.77	1.88	-	-	12.04	2.65	14.70
B Aman	-	-	-	-	-	2.74	12.46	5.19	-	20.39	20.39
L T Aman	1.86	12.53	0.65	-	11.70	54.96	1.48	0.00	15.04	68.14	83.19
M Aman	21.75	12.80	-	-	8.28	13.50	-	0.00	34.55	21.78	56.33
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	4.70	0.99	-	-	10.29	5.68	-	-	5.69	15.98	21.67
Rabi											
L Boro	-	1.06	0.10	0.92	-	-	0.07	1.23	2.08	1.30	3.39
M Boro	21.64	29.02	14.43	1.95	0.17	-	-	-	67.03	0.17	67.19
M Wheat	9.48	11.02	2.07	-	1.35	7.83	3.05	1.38	22.57	13.61	36.18
Potato	1.36	1.22	0.05	-	0.45	0.76	0.43	0.00	2.63	1.64	4.27
Pulses	0.97	2.62	0.52	0.00	11.30	39.37	12.88	2.69	4.12	66.24	70.36
Oilseeds	2.95	6.40	0.42	0.01	5.26	16.84	7.75	1.47	9.77	31.33	41.10
Spices	0.25	0.23	-	-	0.33	0.68	0.12	-	0.48	1.13	1.61
Minor crops	1.41	2.81	0.09	-	0.62	3.80	0.30	-	4.30	4.72	9.02
Orchards	0.13	-	-	-	3.14	-	-	-	0.13	3.14	3.28
Total	70.98	88.28	18.32	2.88	63.22	166.60	43.06	11.97	180.45	284.86	465.31

SC Avg CROP	IRRIGATED				NON-IRRIGATED				Total		
	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.25	0.91	0.12	-	-	1.29	1.29
M Aus	0.13	0.15	-	-	0.04	0.11	-	-	0.28	0.15	0.43
B Aman	-	-	-	-	-	0.11	0.39	0.16	-	0.65	0.65
L T Aman	0.06	0.38	0.02	-	0.58	2.85	0.07	0.00	0.46	3.50	3.96
M Aman	0.85	0.41	-	-	0.21	0.56	-	0.00	1.27	0.77	2.04
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	0.01	0.00	-	-	0.32	0.22	-	-	0.01	0.54	0.56
Rabi											
L Boro	-	0.08	0.01	0.03	-	-	-	0.04	0.12	0.04	0.16
M Boro	0.93	0.99	0.58	0.04	-	-	-	-	2.54	-	2.54
M Wheat	0.13	0.04	-	-	0.04	0.28	0.10	0.03	0.18	0.44	0.62
Potato	0.10	0.06	0.00	-	0.02	0.03	0.01	-	0.16	0.05	0.21
Pulses	0.02	0.04	0.01	-	0.29	1.88	0.43	0.07	0.07	2.67	2.74
Oilseeds	0.14	0.30	0.01	0.00	0.12	0.57	0.26	0.03	0.45	0.98	1.43
Spices	0.01	0.01	-	-	0.01	0.02	0.01	-	0.02	0.03	0.05
Minor crops	0.02	0.04	0.00	-	0.02	0.16	0.01	-	0.06	0.19	0.25
Orchards	-	-	-	-	0.13	-	-	-	-	0.13	0.13
Total	2.40	2.50	0.63	0.07	2.04	7.70	1.39	0.32	5.61	11.45	17.06

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NUTRIENT COMPOSITION : FAT PER PERSON (Kg/Person)
(Nutrient Composition Fat File : SWCFA-3G.wk1)

06-04-1993
sh\fat\sw-fat

SW1	IRRIGATED				NON-IRRIGATED				Total:		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.083	0.065	0.031	-	-	0.178	0.178
M Aus	0.027	0.050	-	-	-	-	-	-	0.077	-	0.077
B Aman	-	-	-	-	-	0.000	0.031	0.003	-	0.034	0.034
L T Aman	0.001	0.062	0.001	-	0.000	0.000	-	-	0.063	0.000	0.063
M Aman	0.079	0.046	-	-	0.028	0.007	-	-	0.126	0.035	0.161
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	-	-	0.002	-	-	-	0.004	0.002	0.004	0.006
M Boro	0.019	0.057	0.008	0.000	0.010	-	-	-	0.083	0.010	0.093
M Wheat	0.222	0.256	0.045	-	0.009	0.077	-	0.006	0.522	0.092	0.614
Potato	-	0.013	0.003	-	0.008	-	0.003	0.001	0.015	0.013	0.028
Pulses	0.006	0.001	0.001	0.000	0.018	0.030	0.013	0.002	0.008	0.062	0.069
Oilseeds	0.197	0.432	-	0.001	0.549	0.199	0.273	0.087	0.629	1.108	1.737
Spices	0.001	0.000	-	-	0.001	0.003	-	-	0.001	0.004	0.005
Minor crops	0.086	0.011	-	-	-	0.085	-	-	0.097	0.085	0.181
Orchards	0.048	-	-	-	0.016	-	-	-	0.048	0.016	0.064
Total	0.685	0.926	0.057	0.003	0.722	0.465	0.351	0.103	1.671	1.641	3.312

SW2	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.006	0.010	0.006	-	-	0.022	0.022
M Aus	0.033	0.086	-	-	0.000	0.000	-	-	0.120	0.000	0.120
B Aman	-	-	-	-	-	0.001	0.004	0.001	-	0.006	0.006
L T Aman	0.019	0.097	0.002	-	0.000	0.001	0.000	-	0.118	0.002	0.119
M Aman	0.232	0.089	-	-	0.006	0.006	-	-	0.321	0.012	0.333
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	-	-	0.002	-	-	-	0.000	0.002	0.000	0.002
M Boro	0.250	0.175	0.022	0.001	0.000	-	-	-	0.448	0.000	0.448
M Wheat	0.222	0.213	0.056	-	0.000	0.017	0.001	0.000	0.491	0.018	0.509
Potato	-	0.000	0.000	-	0.004	0.000	0.000	0.000	0.000	0.004	0.005
Pulses	0.000	0.034	0.000	0.000	0.001	0.007	0.003	0.000	0.034	0.012	0.046
Oilseeds	0.319	1.360	0.000	0.000	0.053	0.049	0.092	0.004	1.679	0.198	1.877
Spices	0.006	0.004	-	-	0.000	0.000	0.000	-	0.011	0.000	0.011
Minor crops	0.093	0.186	0.000	-	0.000	0.003	0.000	-	0.280	0.003	0.283
Orchards	0.000	-	-	-	0.005	-	-	-	0.000	0.005	0.006
Total	1.176	2.245	0.080	0.003	0.075	0.096	0.106	0.006	3.503	0.283	3.786

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NUTRIENT COMPOSITION : FAT PER PERSON (Kg/Person)
(Nutrient Composition Fat File : SWCFA-3G.wk1)

06-04-1993
sh\fat\sw-fat

SW3	IRRIGATED				NON-IRRIGATED				Total:		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.032	0.047	0.008	-	-	0.087	0.087
M Aus	0.009	0.030	-	-	0.002	0.009	-	-	0.039	0.011	0.050
B Aman	-	-	-	-	-	0.015	0.052	0.017	-	0.084	0.084
L T Aman	0.001	0.023	0.001	-	0.001	0.005	-	-	0.025	0.006	0.031
M Aman	0.018	0.023	-	-	0.016	0.017	-	-	0.042	0.033	0.075
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	-	-	0.002	-	-	-	0.002	0.002	0.002	0.004
M Boro	0.017	0.065	0.031	0.000	-	-	-	-	0.114	-	0.114
M Wheat	0.042	0.126	0.027	-	0.015	0.091	0.045	-	0.194	0.150	0.345
Potato	0.000	0.002	-	-	0.005	0.001	0.000	-	0.002	0.006	0.008
Pulses	0.001	0.006	0.000	-	0.040	0.165	0.065	0.005	0.008	0.276	0.284
Oilseeds	0.017	0.094	0.008	0.001	0.302	1.267	0.558	0.034	0.119	2.161	2.280
Spices	0.000	0.001	-	-	0.001	0.004	0.001	-	0.001	0.006	0.006
Minor crops	0.001	0.011	0.000	-	0.011	0.043	0.006	-	0.012	0.060	0.073
Orchards	-	-	-	-	0.032	-	-	-	-	0.032	0.032
Total	0.106	0.381	0.068	0.003	0.458	1.663	0.736	0.058	0.558	2.915	3.473

SW4	IRRIGATED				NON-IRRIGATED				Total:		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.055	0.031	0.008	-	-	0.094	0.094
M Aus	0.016	0.022	-	-	0.002	-	-	-	0.039	0.002	0.040
B Aman	-	-	-	-	-	0.009	0.021	0.007	-	0.037	0.037
L T Aman	0.014	0.035	0.001	-	0.025	0.033	0.001	-	0.050	0.060	0.111
M Aman	0.064	0.038	-	-	0.051	0.010	-	-	0.101	0.062	0.163
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	-	-	0.002	-	-	-	0.001	0.002	0.001	0.003
M Boro	0.063	0.073	0.018	0.002	0.000	-	-	-	0.155	0.000	0.155
M Wheat	0.111	0.135	0.014	-	0.009	0.028	0.051	0.016	0.259	0.104	0.363
Potato	0.004	0.018	0.002	-	0.006	0.004	0.000	0.000	0.023	0.009	0.032
Pulses	0.011	0.008	0.004	0.000	0.115	0.055	0.030	0.004	0.023	0.204	0.228
Oilseeds	0.121	0.180	0.038	0.000	0.871	0.999	0.318	0.025	0.339	2.213	2.552
Spices	0.001	0.001	-	-	0.001	0.000	-	-	0.001	0.001	0.002
Minor crops	0.059	0.106	0.003	-	0.010	0.015	-	-	0.168	0.025	0.193
Orchards	0.001	-	-	-	0.033	-	-	-	0.001	0.033	0.034
Total	0.464	0.615	0.080	0.004	1.179	1.186	0.429	0.053	1.163	2.846	4.009

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NUTRIENT COMPOSITION : FAT PER PERSON (Kg/Person)
(Nutrient Composition Fat File : SWCFA-3G.wk1)

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sh\fat\sw-fat

SW5	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.045	0.058	0.011	-	-	0.114	0.114
M Aus	0.010	0.025	-	-	0.001	0.008	-	-	0.034	0.009	0.043
B Aman	-	-	-	-	-	0.017	0.059	0.019	-	0.095	0.095
L T Aman	0.003	0.029	0.001	-	0.006	0.017	0.002	-	0.033	0.024	0.058
M Aman	0.025	0.025	-	-	0.026	0.020	-	-	0.050	0.046	0.096
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	-	-	0.004	-	-	-	0.003	0.004	0.003	0.006
M Boro	0.020	0.052	0.023	0.002	-	-	-	-	0.098	-	0.098
M Wheat	0.056	0.127	0.027	-	0.015	0.089	0.048	0.003	0.209	0.155	0.364
Potato	0.000	0.004	0.000	-	0.006	0.001	0.005	-	0.005	0.012	0.017
Pulses	0.001	0.002	0.000	-	0.017	0.048	0.021	0.002	0.002	0.088	0.090
Oilseeds	0.042	0.121	0.020	-	0.434	1.376	0.703	0.069	0.184	2.583	2.767
Spices	0.000	0.000	-	-	0.001	0.003	0.001	-	0.001	0.004	0.005
Minor crops	0.007	0.029	0.001	-	0.009	0.032	0.005	-	0.038	0.047	0.084
Orchards	-	-	-	-	0.031	-	-	-	-	0.031	0.031
Total	0.165	0.414	0.073	0.006	0.592	1.668	0.854	0.096	0.658	3.209	3.867

SW6	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.035	0.050	0.009	-	-	0.094	0.094
M Aus	0.010	0.033	-	-	0.002	0.010	-	-	0.043	0.012	0.055
B Aman	-	-	-	-	-	0.016	0.056	0.022	-	0.094	0.094
L T Aman	0.001	0.025	0.001	-	0.001	0.006	-	-	0.027	0.007	0.034
M Aman	0.020	0.026	-	-	0.018	0.019	-	-	0.045	0.037	0.082
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	-	-	0.003	-	-	-	0.002	0.003	0.002	0.004
M Boro	0.018	0.071	0.031	0.002	-	-	-	-	0.122	-	0.122
M Wheat	0.047	0.142	0.030	-	0.017	0.098	0.045	0.004	0.219	0.164	0.383
Potato	-	0.007	-	-	0.005	0.000	0.000	-	0.007	0.006	0.013
Pulses	0.000	0.001	-	-	0.012	0.048	0.019	0.002	0.002	0.081	0.083
Oilseeds	0.016	0.095	-	-	0.325	1.331	0.591	0.071	0.112	2.317	2.429
Spices	0.000	0.000	-	-	0.001	0.003	0.001	-	0.000	0.005	0.005
Minor crops	0.004	0.045	0.002	-	0.011	0.041	0.006	-	0.051	0.058	0.109
Orchards	-	-	-	-	0.032	-	-	-	-	0.032	0.032
Total	0.116	0.446	0.065	0.005	0.458	1.622	0.727	0.100	0.632	2.907	3.539

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NUTRIENT COMPOSITION : FAT PER PERSON (Kg/Person)
(Nutrient Composition Fat File : SWCFA-3G.wk1)

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SW7	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.014	0.034	0.042	-	-	0.091	0.091
M Aus	0.002	0.010	-	-	0.002	0.003	-	-	0.012	0.005	0.017
B Aman	-	-	-	-	-	0.004	0.067	0.059	-	0.130	0.130
L T Aman	0.000	0.011	0.003	-	0.000	0.000	-	-	0.015	0.001	0.016
M Aman	0.005	0.010	-	-	0.011	0.013	-	-	0.015	0.024	0.039
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	-	-	0.001	-	-	-	0.010	0.001	0.010	0.011
M Boro	0.006	0.045	0.112	0.046	-	-	-	-	0.208	-	0.208
M Wheat	0.004	0.011	0.002	-	0.007	0.083	0.033	0.074	0.017	0.198	0.215
Potato	0.002	0.001	-	-	0.005	0.007	0.010	-	0.003	0.021	0.024
Pulses	0.000	0.002	0.001	-	0.006	0.033	0.032	0.014	0.003	0.086	0.089
Oilseeds	0.031	0.231	0.047	0.003	0.247	0.705	1.112	0.683	0.313	2.747	3.060
Spices	0.000	0.002	-	-	0.002	0.003	0.001	-	0.002	0.006	0.008
Minor crops	0.000	0.003	0.000	-	0.009	0.047	0.010	-	0.004	0.066	0.069
Orchards	-	-	-	-	0.022	-	-	-	-	0.022	0.022
Total	0.050	0.326	0.166	0.050	0.325	0.933	1.308	0.840	0.592	3.406	3.999

SW8	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.045	0.015	0.004	-	-	0.064	0.064
M Aus	0.028	0.030	-	-	0.002	-	-	-	0.057	0.002	0.059
B Aman	-	-	-	-	-	0.002	0.013	0.005	-	0.020	0.020
L T Aman	0.016	0.071	0.003	-	0.039	0.047	0.001	-	0.090	0.086	0.176
M Aman	0.121	0.071	-	-	0.036	0.016	-	-	0.192	0.051	0.243
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	-	-	0.003	-	-	0.000	0.001	0.003	0.001	0.004
M Boro	0.117	0.174	0.057	0.004	0.000	-	-	-	0.352	0.000	0.352
M Wheat	0.172	0.157	0.025	-	0.023	0.037	0.014	0.003	0.354	0.078	0.432
Potato	0.019	0.044	0.004	-	0.000	0.002	0.000	0.000	0.067	0.002	0.069
Pulses	0.012	0.010	0.008	0.000	0.078	0.019	0.009	0.001	0.030	0.108	0.138
Oilseeds	0.485	0.917	0.117	0.000	1.032	0.798	0.204	0.016	1.520	2.050	3.570
Spices	0.001	0.001	-	-	0.001	0.000	-	-	0.001	0.001	0.002
Minor crops	0.070	0.146	0.005	-	0.009	0.009	-	-	0.221	0.017	0.239
Orchards	0.000	-	-	-	0.015	-	-	-	0.000	0.015	0.016
Total	1.042	1.620	0.220	0.007	1.281	0.944	0.246	0.026	2.889	2.496	5.384

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NUTRIENT COMPOSITION : FAT PER PERSON (Kg/Person)
(Nutrient Composition Fat File : SWCFA-3G.wk1)

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SW9	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.037	0.016	0.011	-	-	0.063	0.063
M Aus	0.023	0.033	-	-	0.000	-	-	-	0.055	0.000	0.055
B Aman	-	-	-	-	-	0.000	0.022	0.011	-	0.033	0.033
L T Aman	0.008	0.051	0.004	-	0.057	0.042	0.003	-	0.063	0.102	0.165
M Aman	0.064	0.046	-	-	0.048	0.019	-	-	0.110	0.066	0.176
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	-	-	0.001	-	-	0.000	0.001	0.001	0.001	0.001
M Boro	0.057	0.108	0.064	0.009	-	-	-	-	0.238	-	0.238
M Wheat	0.124	0.142	0.040	-	0.013	0.019	0.010	0.002	0.306	0.044	0.350
Potato	0.014	0.044	0.005	-	0.000	0.001	0.001	-	0.064	0.002	0.065
Pulses	0.002	0.002	0.004	-	0.029	0.004	0.011	0.007	0.008	0.051	0.059
Oilseeds	0.492	0.695	0.148	-	0.890	0.125	0.391	0.069	1.336	1.475	2.811
Spices	0.000	0.000	-	-	0.002	0.001	0.000	-	0.000	0.002	0.003
Minor crops	0.054	0.147	0.008	-	0.005	0.005	0.000	-	0.209	0.010	0.220
Orchards	-	-	-	-	0.016	-	-	-	-	0.016	0.016
Total	0.838	1.268	0.273	0.009	1.097	0.230	0.449	0.089	2.389	1.866	4.255

SW10	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.025	0.024	0.025	-	-	0.073	0.073
M Aus	0.009	0.007	-	-	0.001	0.000	-	-	0.016	0.001	0.017
B Aman	-	-	-	-	-	0.006	0.073	0.019	-	0.098	0.098
L T Aman	0.003	0.009	0.002	-	0.021	0.055	0.017	-	0.014	0.092	0.106
M Aman	0.018	0.012	-	-	0.028	0.019	-	-	0.029	0.047	0.076
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	-	-	0.006	-	-	0.000	0.013	0.006	0.014	0.019
M Boro	0.012	0.018	0.029	0.012	-	-	-	-	0.071	-	0.071
M Wheat	0.051	0.035	0.015	-	0.005	0.009	0.005	0.001	0.101	0.020	0.121
Potato	0.002	0.002	0.001	-	0.009	0.000	0.034	-	0.005	0.043	0.049
Pulses	0.001	0.001	0.000	-	0.010	0.009	0.026	0.005	0.001	0.050	0.052
Oilseeds	0.112	0.253	0.108	-	0.740	1.044	2.045	0.421	0.473	4.250	4.723
Spices	0.000	0.000	-	-	0.000	0.000	0.000	-	0.000	0.001	0.001
Minor crops	0.005	0.027	0.003	-	0.005	0.013	0.006	-	0.035	0.024	0.059
Orchards	-	-	-	-	0.023	-	-	-	-	0.023	0.023
Total	0.214	0.364	0.157	0.017	0.866	1.181	2.230	0.459	0.752	4.736	5.488

NUTRIENT COMPOSITION : FAT PER PERSON (Kg/Person)
(Nutrient Composition Fat File : SWCFA-3G.wk1)

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SW11	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.003	0.011	0.000	-	-	0.014	0.014
M Aus	0.002	0.018	-	-	-	-	-	-	0.020	-	0.020
B Aman	-	-	-	-	-	-	0.006	0.000	-	0.006	0.006
L T Aman	0.001	0.043	0.000	-	0.039	0.336	0.002	-	0.044	0.378	0.422
M Aman	0.010	0.053	-	-	0.023	0.081	-	-	0.063	0.104	0.167
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	-	-	0.002	-	-	0.002	-	0.002	0.002	0.004
M Boro	0.010	0.124	0.004	0.000	-	-	-	-	0.138	-	0.138
M Wheat	0.014	0.081	0.001	-	0.000	0.001	0.000	0.000	0.096	0.001	0.097
Potato	0.000	0.011	0.000	-	-	0.027	-	-	0.012	0.027	0.039
Pulses	0.000	0.000	0.000	-	0.005	0.031	0.001	0.000	0.000	0.037	0.037
Oilseeds	0.019	0.029	0.005	-	0.380	2.863	0.070	0.006	0.053	3.319	3.372
Spices	0.000	-	-	-	0.001	0.003	0.000	-	0.000	0.004	0.004
Minor crops	0.002	0.003	0.000	-	0.005	0.082	-	-	0.006	0.087	0.093
Orchards	-	-	-	-	0.047	-	-	-	-	0.047	0.047
Total	0.059	0.361	0.011	0.003	0.504	3.435	0.080	0.006	0.434	4.026	4.460

SW12	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.004	0.005	0.002	-	-	0.010	0.010
M Aus	0.002	0.005	-	-	-	-	-	-	0.007	-	0.007
B Aman	-	-	-	-	-	0.000	0.005	0.002	-	0.006	0.006
L T Aman	0.001	0.008	0.000	-	0.015	0.089	0.001	-	0.009	0.105	0.114
M Aman	0.004	0.010	-	-	0.010	0.022	-	-	0.014	0.032	0.046
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	-	-	0.000	-	-	0.000	0.000	0.000	0.000	0.001
M Boro	0.003	0.020	0.005	0.001	-	-	-	-	0.029	-	0.029
M Wheat	0.010	0.022	0.004	-	-	-	0.002	0.000	0.036	0.002	0.037
Potato	0.000	0.003	0.000	-	0.000	0.003	0.000	-	0.003	0.003	0.006
Pulses	0.000	0.000	0.000	-	0.002	0.008	0.002	0.001	0.001	0.013	0.014
Oilseeds	0.037	0.041	0.013	-	0.234	1.098	0.123	0.017	0.091	1.472	1.563
Spices	0.000	0.000	-	-	0.000	0.000	0.000	-	0.000	0.001	0.001
Minor crops	0.002	0.008	0.001	-	0.001	0.008	0.000	-	0.010	0.009	0.019
Orchards	-	-	-	-	0.006	-	-	-	-	0.006	0.006
Total	0.060	0.116	0.024	0.001	0.272	1.233	0.134	0.020	0.201	1.659	1.861

NUTRIENT COMPOSITION : FAT PER PERSON (Kg/Person)
(Nutrient Composition Fat File : SWCFA-3G.wk1)

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SW13	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.010	0.038	0.024	-	-	0.072	0.072
M Aus	0.003	0.003	-	-	0.001	0.001	-	-	0.005	0.002	0.007
B Aman	-	-	-	-	-	0.011	0.047	0.032	-	0.091	0.091
L T Aman	0.001	0.006	0.001	-	0.012	0.127	0.007	0.000	0.008	0.145	0.153
M Aman	0.005	0.008	-	-	0.022	0.050	-	0.000	0.014	0.071	0.085
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	0.000	0.001	0.003	-	-	0.000	0.006	0.004	0.006	0.010
M Boro	0.004	0.016	0.022	0.012	-	-	-	-	0.053	-	0.053
M Wheat	0.013	0.013	0.004	-	0.002	0.043	0.001	0.034	0.031	0.080	0.112
Potato	0.000	0.001	0.000	-	0.018	0.044	0.031	-	0.002	0.094	0.096
Pulses	0.000	0.000	-	-	0.004	0.037	0.018	0.007	0.000	0.066	0.066
Oilseeds	0.038	0.127	0.036	-	0.316	2.264	1.338	0.537	0.202	4.454	4.656
Spices	0.000	0.000	-	-	0.000	0.000	0.000	-	0.000	0.001	0.001
Minor crops	0.001	0.013	0.001	-	0.007	0.039	0.009	-	0.015	0.056	0.070
Orchards	-	-	-	-	0.072	-	-	-	-	0.072	0.072
Total	0.065	0.188	0.067	0.014	0.464	2.654	1.476	0.617	0.334	5.210	5.544

SW14	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.003	0.014	0.001	-	-	0.018	0.018
M Aus	0.000	0.002	-	-	-	-	-	-	0.003	-	0.003
B Aman	-	-	-	-	-	0.001	0.009	0.001	-	0.010	0.010
L T Aman	0.000	0.006	0.000	-	0.041	0.361	0.003	0.000	0.006	0.405	0.411
M Aman	0.001	0.007	-	-	0.024	0.088	-	0.000	0.008	0.112	0.120
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	-	0.000	0.000	-	-	0.002	0.000	0.000	0.002	0.003
M Boro	0.001	0.016	0.001	0.000	-	-	-	-	0.018	-	0.018
M Wheat	0.002	0.011	0.000	-	-	0.002	-	-	0.013	0.002	0.015
Potato	0.000	0.001	0.000	-	0.001	0.022	0.002	-	0.002	0.024	0.026
Pulses	-	-	-	-	0.005	0.033	0.002	0.000	-	0.039	0.039
Oilseeds	0.001	0.002	0.001	-	0.394	3.112	0.143	0.018	0.005	3.668	3.673
Spices	0.000	0.000	-	-	0.000	0.001	-	-	0.000	0.001	0.001
Minor crops	0.000	0.001	0.000	-	0.004	0.060	0.000	-	0.001	0.064	0.065
Orchards	-	-	-	-	0.037	-	-	-	-	0.037	0.037
Total	0.006	0.047	0.003	0.001	0.508	3.693	0.162	0.019	0.056	4.382	4.439

NUTRIENT COMPOSITION : FAT PER PERSON (Kg/Person)

06-04-1993

(Nutrient Composition Fat File : SWCFA-3G.wk1)

sh\fat\sw-fat

SW Total	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.395	0.416	0.183	-	-	0.994	0.994
M Aus	0.174	0.354	-	-	0.012	0.031	-	-	0.528	0.044	0.571
B Aman	-	-	-	-	-	0.084	0.464	0.197	-	0.745	0.745
L T Aman	0.069	0.474	0.022	-	0.257	1.119	0.036	0.000	0.566	1.413	1.979
M Aman	0.667	0.464	-	-	0.346	0.386	-	0.000	1.131	0.732	1.863
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	0.000	0.001	0.030	-	-	0.004	0.043	0.031	0.047	0.078
M Boro	0.597	1.013	0.427	0.092	0.010	-	-	-	2.129	0.010	2.139
M Wheat	1.089	1.470	0.290	-	0.117	0.593	0.253	0.143	2.849	1.107	3.956
Potato	0.043	0.151	0.017	-	0.068	0.110	0.087	0.001	0.211	0.266	0.477
Pulses	0.034	0.068	0.018	0.000	0.342	0.528	0.251	0.052	0.120	1.173	1.293
Oilseeds	1.929	4.578	0.543	0.004	6.768	17.231	7.961	2.056	7.054	34.016	41.070
Spices	0.010	0.009	-	-	0.011	0.022	0.004	-	0.018	0.037	0.055
Minor crops	0.386	0.736	0.025	-	0.085	0.482	0.044	-	1.147	0.611	1.757
Orchards	0.050	-	-	-	0.388	-	-	-	0.050	0.388	0.437
Total:	5.046	9.317	1.344	0.126	8.800	21.003	9.287	2.492	15.833	41.582	57.415

SW Avg	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.028	0.030	0.013	-	-	0.071	0.071
M Aus	0.012	0.025	-	-	0.001	0.002	-	-	0.038	0.003	0.041
B Aman	-	-	-	-	-	0.006	0.033	0.014	-	0.053	0.053
L T Aman	0.005	0.034	0.002	-	0.018	0.080	0.003	0.000	0.040	0.101	0.141
M Aman	0.048	0.033	-	-	0.025	0.028	-	0.000	0.081	0.052	0.133
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	0.000	0.000	0.002	-	-	0.000	0.003	0.002	0.003	0.006
M Boro	0.043	0.072	0.031	0.007	0.001	-	-	-	0.152	0.001	0.153
M Wheat	0.078	0.105	0.021	-	0.008	0.042	0.018	0.010	0.204	0.079	0.283
Potato	0.003	0.011	0.001	-	0.005	0.008	0.006	0.000	0.015	0.019	0.034
Pulses	0.002	0.005	0.001	0.000	0.024	0.038	0.018	0.004	0.009	0.084	0.092
Oilseeds	0.138	0.327	0.039	0.000	0.483	1.231	0.569	0.147	0.504	2.430	2.934
Spices	0.001	0.001	-	-	0.001	0.002	0.000	-	0.001	0.003	0.004
Minor crops	0.028	0.053	0.002	-	0.006	0.034	0.003	-	0.082	0.044	0.126
Orchards	0.004	-	-	-	0.028	-	-	-	0.004	0.028	0.031
Total	0.360	0.665	0.096	0.009	0.629	1.500	0.663	0.178	1.131	2.970	4.101

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NUTRIENT COMPOSITION : FAT PER PERSON (Kg/Person)

(Nutrient Composition Fat File : SWCFA-3G.wk1)

06-04-93
sh\fat\sc-fat

SC1	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.017	0.047	0.033	-	-	0.097	0.097
M Aus	0.003	0.018	-	-	0.002	0.003	-	-	0.021	0.005	0.025
B Aman	-	-	-	-	-	0.007	0.062	0.009	-	0.078	0.078
L T Aman	0.001	0.013	0.003	-	0.001	0.000	-	-	0.016	0.001	0.017
M Aman	0.006	0.009	-	-	0.010	0.005	-	-	0.015	0.015	0.030
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	-	-	0.002	-	-	-	0.011	0.002	0.011	0.013
M Boro	0.007	0.044	0.105	0.007	-	-	-	-	0.164	-	0.164
M Wheat	-	-	-	-	0.007	0.084	0.075	0.001	-	0.168	0.168
Potato	0.001	-	-	-	0.000	0.008	0.007	-	0.001	0.015	0.016
Pulses	0.000	0.005	0.002	-	0.008	0.053	0.036	0.004	0.007	0.100	0.107
Oilseeds	0.039	0.242	0.135	0.009	0.357	1.677	1.260	0.073	0.426	3.368	3.794
Spices	0.001	0.004	-	-	0.003	0.003	0.002	-	0.004	0.008	0.012
Minor crops	-	-	-	-	0.009	0.055	0.007	-	-	0.072	0.072
Orchards	-	-	-	-	0.022	-	-	-	-	0.022	0.022
Total	0.056	0.335	0.246	0.018	0.436	1.942	1.483	0.098	0.654	3.959	4.614

SC2	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.014	0.057	0.008	-	-	0.080	0.080
M Aus	0.001	0.005	-	-	0.005	0.014	-	-	0.005	0.019	0.025
B Aman	-	-	-	-	-	0.030	0.070	0.011	-	0.111	0.111
L T Aman	0.001	0.025	0.001	-	0.008	0.057	0.002	-	0.027	0.067	0.094
M Aman	0.009	0.032	-	-	0.007	0.008	-	-	0.042	0.015	0.056
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	-	-	0.001	-	-	-	0.008	0.001	0.008	0.009
M Boro	0.016	0.129	0.043	0.005	-	-	-	-	0.193	-	0.193
M Wheat	-	-	-	-	0.008	0.084	0.053	0.002	-	0.147	0.147
Potato	0.000	-	-	-	0.003	0.012	0.002	-	0.000	0.017	0.017
Pulses	0.001	0.001	0.000	-	0.015	0.037	0.032	0.002	0.003	0.086	0.089
Oilseeds	0.089	1.297	0.043	0.002	0.266	0.332	1.902	0.054	1.431	2.554	3.986
Spices	0.000	0.000	-	-	0.000	0.001	0.000	-	0.000	0.002	0.002
Minor crops	-	-	-	-	0.010	0.063	0.006	-	-	0.080	0.080
Orchards	-	-	-	-	0.033	-	-	-	-	0.033	0.033
Total	0.118	1.489	0.088	0.008	0.370	0.696	2.075	0.078	1.703	3.219	4.922

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NUTRIENT COMPOSITION : FAT PER PERSON (Kg/Person)

06-04-93

(Nutrient Composition Fat File : SWCFA-3G.wk1)

sh\fat\sc-fat

SC3	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.009	0.044	0.017	-	-	0.070	0.070
M Aus	0.001	0.004	-	-	0.004	0.009	-	-	0.004	0.013	0.017
B Aman	-	-	-	-	-	0.008	0.048	0.028	-	0.083	0.083
L T Aman	0.001	0.027	0.004	-	0.004	0.026	0.000	-	0.032	0.030	0.062
M Aman	0.009	0.036	-	-	0.014	0.019	-	-	0.045	0.033	0.077
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	-	-	0.009	-	-	-	0.004	0.009	0.004	0.013
M Boro	0.015	0.143	0.132	0.002	-	-	-	-	0.292	-	0.292
M Wheat	-	-	-	-	0.021	0.024	0.011	0.000	-	0.057	0.057
Potato	0.001	-	-	-	0.004	0.006	0.004	-	0.001	0.015	0.015
Pulses	0.000	0.001	0.000	-	0.004	0.023	0.014	0.003	0.002	0.044	0.046
Oilseeds	0.100	1.455	0.024	0.002	0.098	0.574	0.525	0.031	1.581	1.228	2.809
Spices	0.000	0.000	-	-	0.000	0.001	0.000	-	0.000	0.001	0.001
Minor crops	-	-	-	-	0.005	0.033	0.005	-	-	0.043	0.043
Orchards	-	-	-	-	0.025	-	-	-	-	0.025	0.025
Total	0.126	1.665	0.161	0.012	0.188	0.767	0.625	0.065	1.965	1.645	3.610

SC4	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.011	0.056	0.037	-	-	0.105	0.105
M Aus	0.000	0.000	-	-	0.004	0.009	-	-	0.000	0.013	0.013
B Aman	-	-	-	-	-	0.007	0.067	0.063	-	0.136	0.136
L T Aman	0.000	0.017	0.003	-	0.005	0.036	0.000	0.000	0.021	0.040	0.061
M Aman	0.004	0.019	-	-	0.018	0.026	-	0.000	0.023	0.045	0.067
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	-	0.000	0.005	-	-	-	0.006	0.005	0.006	0.010
M Boro	0.006	0.059	0.066	0.014	-	-	-	-	0.145	-	0.145
M Wheat	0.000	0.000	-	-	0.025	0.038	-	0.045	0.000	0.108	0.108
Potato	0.000	0.000	0.000	-	0.012	0.014	0.013	-	0.000	0.039	0.039
Pulses	-	-	-	-	0.004	0.023	0.020	0.010	-	0.057	0.057
Oilseeds	0.053	0.757	0.000	-	0.126	0.510	0.780	0.425	0.810	1.841	2.651
Spices	0.000	0.000	-	-	0.000	0.001	0.000	-	0.000	0.001	0.001
Minor crops	0.000	0.000	0.000	-	0.011	0.068	0.013	-	0.000	0.092	0.092
Orchards	-	-	-	-	0.051	-	-	-	-	0.051	0.051
Total	0.063	0.852	0.070	0.019	0.267	0.787	0.931	0.548	1.004	2.534	3.538

NUTRIENT COMPOSITION : FAT PER PERSON (Kg/Person)

(Nutrient Composition Fat File : SWCFA-3G.wk1)

06-04-93

sh\fat\sc-fat

SC5	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.007	0.019	0.003	-	-	0.028	0.028
M Aus	0.023	0.010	-	-	0.001	0.003	-	-	0.033	0.004	0.037
B Aman	-	-	-	-	-	0.001	0.006	0.004	-	0.012	0.012
L T Aman	0.011	0.051	0.005	-	0.008	0.036	0.000	0.000	0.067	0.044	0.111
M Aman	0.138	0.056	-	-	0.010	0.019	-	0.000	0.195	0.029	0.223
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	0.017	0.000	0.011	-	-	-	0.000	0.028	0.000	0.028
M Boro	0.165	0.131	0.107	0.000	-	-	-	-	0.403	-	0.403
M Wheat	0.040	0.002	-	-	0.003	0.004	0.000	0.000	0.042	0.008	0.050
Potato	0.140	0.069	0.000	-	0.001	0.001	0.001	-	0.209	0.003	0.212
Pulses	0.000	0.000	-	-	0.002	0.009	0.001	0.000	0.000	0.013	0.014
Oilseeds	0.912	1.667	0.000	-	0.042	0.403	0.057	0.004	2.579	0.505	3.085
Spices	0.001	0.000	-	-	0.000	0.000	0.000	-	0.001	0.000	0.002
Minor crops	0.004	0.007	0.000	-	0.002	0.013	0.001	-	0.011	0.016	0.027
Orchards	-	-	-	-	0.009	-	-	-	-	0.009	0.009
Total	1.434	2.010	0.112	0.011	0.086	0.509	0.068	0.009	3.568	0.672	4.240

SC6	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.017	0.065	0.002	-	-	0.084	0.084
M Aus	0.002	0.001	-	-	0.005	0.013	-	-	0.002	0.018	0.020
B Aman	-	-	-	-	-	0.029	0.058	0.012	-	0.098	0.098
L T Aman	0.001	0.026	0.001	-	0.016	0.097	0.003	-	0.028	0.116	0.144
M Aman	0.016	0.028	-	-	0.012	0.019	-	-	0.045	0.031	0.076
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	0.001	0.000	0.001	-	-	-	0.006	0.002	0.006	0.007
M Boro	0.021	0.085	0.015	0.002	-	-	-	-	0.125	-	0.125
M Wheat	0.003	0.000	-	-	0.008	0.064	0.035	0.002	0.003	0.109	0.112
Potato	0.002	0.001	-	-	0.003	0.010	0.000	-	0.003	0.014	0.017
Pulses	0.001	0.000	0.000	-	0.014	0.030	0.023	0.002	0.001	0.069	0.070
Oilseeds	0.129	1.118	0.013	-	0.225	0.323	1.642	0.043	1.260	2.233	3.493
Spices	0.000	0.000	-	-	0.000	0.001	0.000	-	0.000	0.002	0.002
Minor crops	0.000	0.000	0.000	-	0.010	0.060	0.005	-	0.000	0.075	0.075
Orchards	-	-	-	-	0.033	-	-	-	-	0.033	0.033
Total	0.176	1.260	0.029	0.003	0.344	0.712	1.768	0.064	1.468	2.888	4.355

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NUTRIENT COMPOSITION : FAT PER PERSON (Kg/Person)

06-04-93

(Nutrient Composition Fat File : SWCFA-3G.wk1)

sh\fat\sc-fat

SC7	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.007	0.018	-	-	-	0.025	0.025
M Aus	0.039	0.022	-	-	0.001	0.002	-	-	0.062	0.003	0.065
B Aman	-	-	-	-	-	0.000	0.000	0.000	-	0.000	0.000
L T Aman	0.017	0.035	0.000	-	0.012	0.050	0.000	-	0.052	0.062	0.114
M Aman	0.228	0.039	-	-	0.009	0.022	-	-	0.267	0.032	0.299
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	0.028	0.001	-	-	-	-	0.000	0.029	0.000	0.029
M Boro	0.266	0.037	0.001	0.000	-	-	-	-	0.304	-	0.304
M Wheat	0.074	0.011	-	-	0.000	0.006	0.000	0.000	0.085	0.006	0.091
Potato	0.043	0.023	-	-	0.000	0.001	-	-	0.066	0.002	0.068
Pulses	0.001	0.001	0.000	-	0.003	0.014	0.000	0.000	0.002	0.017	0.018
Oilseeds	1.297	0.084	0.000	-	0.044	0.424	0.003	0.000	1.381	0.471	1.852
Spices	0.002	0.000	-	-	0.000	0.000	0.000	-	0.002	0.000	0.002
Minor crops	0.004	0.006	0.000	-	0.002	0.012	0.000	-	0.010	0.014	0.024
Orchards	-	-	-	-	0.008	-	-	-	-	0.008	0.008
Total	1.969	0.288	0.002	0.000	0.087	0.551	0.003	0.000	2.259	0.641	2.900

SC8	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.020	0.058	-	-	-	0.078	0.078
M Aus	0.003	0.002	-	-	0.001	0.005	-	-	0.005	0.006	0.011
B Aman	-	-	-	-	-	0.000	0.002	0.000	-	0.002	0.002
L T Aman	0.002	0.014	0.000	-	0.070	0.333	0.012	-	0.016	0.415	0.432
M Aman	0.048	0.013	-	-	0.009	0.012	-	-	0.061	0.021	0.082
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	0.001	0.001	-	-	-	-	0.000	0.003	0.000	0.003
M Boro	0.036	0.025	0.002	0.000	-	-	-	-	0.063	-	0.063
M Wheat	0.027	0.011	-	-	0.000	0.001	0.001	0.000	0.038	0.002	0.040
Potato	-	0.001	-	-	0.006	0.000	-	-	0.001	0.006	0.007
Pulses	0.000	0.001	0.000	-	0.009	0.079	0.002	0.000	0.002	0.090	0.092
Oilseeds	0.028	0.114	0.000	-	0.336	1.423	0.054	0.001	0.143	1.813	1.955
Spices	0.000	0.000	-	-	0.000	0.001	0.000	-	0.000	0.001	0.001
Minor crops	0.003	0.010	0.001	-	0.006	0.040	0.000	-	0.013	0.045	0.058
Orchards	-	-	-	-	0.034	-	-	-	-	0.034	0.034
Total	0.148	0.192	0.004	0.000	0.491	1.952	0.069	0.001	0.344	2.514	2.858

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NUTRIENT COMPOSITION : FAT PER PERSON (Kg/Person)

(Nutrient Composition Fat File : SWCFA-3G.wk1)

06-04-93

sh\fat\sc-fat

SC9	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.022	0.082	-	-	-	0.104	0.104
M Aus	0.001	0.002	-	-	0.002	0.006	-	-	0.003	0.008	0.012
B Aman	-	-	-	-	-	0.001	0.001	-	-	0.002	0.002
L T Aman	0.001	0.007	0.000	-	0.084	0.403	0.011	-	0.008	0.498	0.506
M Aman	0.019	0.007	-	-	0.015	0.054	-	-	0.026	0.068	0.095
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	0.001	0.001	-	-	-	-	-	0.001	-	0.001
M Boro	0.015	0.012	0.001	-	-	-	-	-	0.027	-	0.027
M Wheat	0.011	0.005	-	-	-	0.033	-	-	0.016	0.033	0.049
Potato	0.000	0.001	-	-	0.007	0.008	-	-	0.001	0.014	0.015
Pulses	0.000	0.001	0.000	-	0.012	0.115	0.002	-	0.001	0.128	0.129
Oilseeds	0.011	0.040	-	-	0.334	1.726	0.017	-	0.051	2.078	2.129
Spices	0.000	0.000	-	-	0.000	0.001	0.000	-	0.000	0.001	0.001
Minor crops	0.002	0.005	0.000	-	0.005	0.045	-	-	0.006	0.050	0.056
Orchards	-	-	-	-	0.050	-	-	-	-	0.050	0.050
Total	0.060	0.080	0.002	-	0.531	2.472	0.031	-	0.142	3.035	3.176

SC10	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.017	0.092	-	-	-	0.109	0.109
M Aus	0.003	0.009	-	-	0.003	0.007	-	-	0.012	0.010	0.021
B Aman	-	-	-	-	-	0.003	0.000	-	-	0.003	0.003
L T Aman	0.001	0.016	0.000	-	0.067	0.329	0.003	-	0.017	0.398	0.415
M Aman	0.021	0.016	-	-	0.024	0.129	-	-	0.037	0.153	0.190
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	0.001	0.000	-	-	-	-	-	0.001	-	0.001
M Boro	0.015	0.019	0.000	-	-	-	-	-	0.034	-	0.034
M Wheat	0.010	0.009	-	-	-	0.092	-	-	0.019	0.092	0.111
Potato	0.007	0.014	-	-	0.004	0.022	-	-	0.022	0.026	0.048
Pulses	0.000	0.001	0.000	-	0.006	0.076	0.000	-	0.001	0.083	0.084
Oilseeds	0.063	0.062	-	-	0.179	1.712	0.004	-	0.125	1.895	2.020
Spices	0.000	0.000	-	-	0.000	0.001	0.000	-	0.000	0.001	0.002
Minor crops	0.011	0.019	0.000	-	0.002	0.035	-	-	0.030	0.037	0.067
Orchards	-	-	-	-	0.061	-	-	-	-	0.061	0.061
Total	0.132	0.165	0.001	-	0.363	2.498	0.007	-	0.298	2.868	3.166

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NUTRIENT COMPOSITION : FAT PER PERSON (Kg/Person)

(Nutrient Composition Fat File : SWCFA-3G.wk1)

06-04-93

sh\fat\sc-fat

SC11	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.012	0.053	-	-	-	0.065	0.065
M Aus	0.026	0.042	-	-	0.002	0.005	-	-	0.069	0.007	0.076
B Aman	-	-	-	-	-	0.001	0.000	-	-	0.001	0.001
L T Aman	0.009	0.057	0.000	-	0.031	0.147	0.000	-	0.066	0.178	0.245
M Aman	0.132	0.059	-	-	0.017	0.072	-	-	0.192	0.090	0.281
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	0.015	0.000	-	-	-	-	-	0.015	-	0.015
M Boro	0.147	0.082	0.000	-	-	-	-	-	0.229	-	0.229
M Wheat	0.044	0.025	-	-	-	0.044	-	-	0.069	0.044	0.112
Potato	0.036	0.032	-	-	0.002	0.010	-	-	0.068	0.012	0.080
Pulses	0.001	0.002	0.000	-	0.004	0.036	0.000	-	0.003	0.039	0.042
Oilseeds	0.704	0.128	-	-	0.071	0.811	0.000	-	0.832	0.882	1.714
Spices	0.001	0.000	-	-	0.000	0.001	0.000	-	0.001	0.001	0.002
Minor crops	0.015	0.021	0.000	-	0.002	0.021	-	-	0.036	0.023	0.059
Orchards	-	-	-	-	0.029	-	-	-	-	0.029	0.029
Total	1.116	0.464	0.000	-	0.171	1.201	0.000	-	1.580	1.372	2.952

SC12	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.016	0.061	0.000	-	-	0.077	0.077
M Aus	0.003	0.005	-	-	0.002	0.005	-	-	0.008	0.006	0.014
B Aman	-	-	-	-	-	0.001	0.001	0.000	-	0.002	0.002
L T Aman	0.002	0.014	0.000	-	0.058	0.279	0.007	0.000	0.016	0.343	0.359
M Aman	0.035	0.014	-	-	0.013	0.053	-	0.000	0.049	0.067	0.116
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	0.001	0.001	0.000	-	-	-	0.000	0.002	0.000	0.002
M Boro	0.026	0.021	0.001	0.000	-	-	-	-	0.048	-	0.048
M Wheat	0.019	0.010	-	-	0.000	0.033	-	-	0.028	0.033	0.061
Potato	0.002	0.003	0.000	-	0.004	0.008	0.000	-	0.005	0.013	0.017
Pulses	0.000	0.001	0.000	-	0.006	0.057	0.001	0.000	0.001	0.063	0.064
Oilseeds	0.038	0.052	0.000	-	0.163	0.989	0.012	0.000	0.090	1.164	1.254
Spices	0.000	0.000	-	-	0.000	0.001	0.000	-	0.000	0.001	0.001
Minor crops	0.003	0.008	0.000	-	0.004	0.032	0.000	-	0.012	0.035	0.047
Orchards	-	-	-	-	0.039	-	-	-	-	0.039	0.039
Total	0.128	0.127	0.003	0.000	0.304	1.519	0.020	0.000	0.259	1.843	2.102

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NUTRIENT COMPOSITION : FAT PER PERSON (Kg/Person)

(Nutrient Composition Fat File : SWCFA-3G.wk1)

06-04-93

sh\fat\sc-fat

SC13	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.031	0.091	-	-	-	0.122	0.122
M Aus	0.001	0.001	-	-	0.002	0.007	-	-	0.003	0.009	0.012
B Aman	-	-	-	-	-	-	0.001	-	-	0.001	0.001
L T Aman	0.001	0.007	0.000	-	0.110	0.522	0.019	-	0.009	0.650	0.659
M Aman	0.026	0.007	-	-	0.014	0.019	-	-	0.033	0.032	0.065
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	0.001	0.001	-	-	-	-	-	0.002	-	0.002
M Boro	0.020	0.013	0.001	-	-	-	-	-	0.034	-	0.034
M Wheat	0.015	0.006	-	-	-	-	-	-	0.021	-	0.021
Potato	-	0.002	-	-	0.009	-	-	-	0.002	0.009	0.011
Pulses	0.000	0.001	0.000	-	0.015	0.129	0.002	-	0.001	0.146	0.147
Oilseeds	0.014	0.048	-	-	0.521	2.234	0.030	-	0.062	2.785	2.847
Spices	0.000	0.000	-	-	0.000	0.001	0.000	-	0.000	0.002	0.002
Minor crops	0.005	0.019	0.001	-	0.009	0.061	-	-	0.025	0.070	0.095
Orchards	-	-	-	-	0.053	-	-	-	-	0.053	0.053
Total	0.083	0.105	0.003	-	0.764	3.064	0.052	-	0.191	3.879	4.070

SC Total	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.202	0.743	0.100	-	-	1.045	1.045
M Aus	0.105	0.120	-	-	0.035	0.087	-	-	0.225	0.122	0.347
B Aman	-	-	-	-	-	0.088	0.315	0.128	-	0.530	0.530
L T Aman	0.047	0.309	0.019	-	0.474	2.316	0.056	0.000	0.375	2.846	3.220
M Aman	0.693	0.336	-	-	0.171	0.458	-	0.000	1.029	0.629	1.657
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	0.066	0.005	0.028	-	-	-	0.034	0.099	0.034	0.133
M Boro	0.755	0.801	0.475	0.030	-	-	-	-	2.061	-	2.061
M Wheat	0.243	0.078	-	-	0.073	0.507	0.175	0.050	0.322	0.806	1.127
Potato	0.232	0.147	0.000	-	0.054	0.101	0.028	-	0.378	0.182	0.561
Pulses	0.006	0.014	0.003	-	0.100	0.680	0.134	0.021	0.023	0.934	0.957
Oilseeds	3.478	7.065	0.216	0.012	2.761	13.140	6.286	0.630	10.771	22.817	33.589
Spices	0.006	0.004	-	-	0.005	0.014	0.003	-	0.010	0.022	0.031
Minor crops	0.046	0.094	0.002	-	0.078	0.537	0.037	-	0.143	0.652	0.795
Orchards	-	-	-	-	0.448	-	-	-	-	0.448	0.448
Total	5.611	9.033	0.720	0.070	4.403	18.669	7.134	0.863	15.435	31.069	46.504

267

NUTRIENT COMPOSITION : FAT PER PERSON (Kg/Person)

(Nutrient Composition Fat File : SWCFA-3G.wk1)

06-04-93

sh\fat\sc-fat

TOTAL	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.597	1.159	0.283	-	-	2.040	2.040
M Aus	0.279	0.474	-	-	0.048	0.118	-	-	0.753	0.166	0.919
B Aman	-	-	-	-	-	0.171	0.778	0.325	-	1.275	1.275
L T Aman	0.116	0.783	0.041	-	0.732	3.435	0.092	0.000	0.940	4.259	5.199
M Aman	1.360	0.800	-	-	0.517	0.844	-	0.000	2.160	1.361	3.521
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	0.066	0.006	0.057	-	-	0.004	0.077	0.130	0.081	0.212
M Boro	1.352	1.813	0.902	0.122	0.010	-	-	-	4.189	0.010	4.200
M Wheat	1.332	1.549	0.290	-	0.190	1.100	0.429	0.194	3.171	1.913	5.084
Potato	0.274	0.298	0.017	-	0.122	0.211	0.115	0.001	0.589	0.448	1.037
Pulses	0.040	0.082	0.021	0.000	0.442	1.208	0.384	0.073	0.143	2.107	2.251
Oilseeds	5.407	11.642	0.759	0.017	9.529	30.371	14.247	2.686	17.825	56.833	74.658
Spices	0.015	0.013	-	-	0.017	0.036	0.006	-	0.028	0.059	0.087
Minor crops	0.432	0.830	0.027	-	0.163	1.019	0.081	-	1.290	1.263	2.553
Orchards	0.050	-	-	-	0.836	-	-	-	0.050	0.836	0.886
Total	10.658	18.350	2.064	0.196	13.203	39.672	16.421	3.356	31.267	72.651	103.919

SC Avg	IRRIGATED				NON-IRRIGATED				Total		
CROP	F0	F1	F2	F3	F0	F1	F2	F3	Irrigated	Rainfed	Overall
Kharif											
B Aus	-	-	-	-	0.016	0.057	0.008	-	-	0.080	0.080
M Aus	0.008	0.009	-	-	0.003	0.007	-	-	0.017	0.009	0.027
B Aman	-	-	-	-	-	0.007	0.024	0.010	-	0.041	0.041
L T Aman	0.004	0.024	0.001	-	0.036	0.178	0.004	0.000	0.029	0.219	0.248
M Aman	0.053	0.026	-	-	0.013	0.035	-	0.000	0.079	0.048	0.127
Jute	-	-	-	-	-	-	-	-	-	-	-
Sugarcane	-	-	-	-	-	-	-	-	-	-	-
Rabi											
L Boro	-	0.005	0.000	0.002	-	-	-	0.003	0.008	0.003	0.010
M Boro	0.058	0.062	0.037	0.002	-	-	-	-	0.159	-	0.159
M Wheat	0.019	0.006	-	-	0.006	0.039	0.013	0.004	0.025	0.062	0.087
Potato	0.018	0.011	0.000	-	0.004	0.008	0.002	-	0.029	0.014	0.043
Pulses	0.000	0.001	0.000	-	0.008	0.052	0.010	0.002	0.002	0.072	0.074
Oilseeds	0.268	0.543	0.017	0.001	0.212	1.011	0.484	0.048	0.829	1.755	2.584
Spices	0.000	0.000	-	-	0.000	0.001	0.000	-	0.001	0.002	0.002
Minor crops	0.004	0.007	0.000	-	0.006	0.041	0.003	-	0.011	0.050	0.061
Orchards	-	-	-	-	0.034	-	-	-	-	0.034	0.034
Total	0.432	0.695	0.055	0.005	0.339	1.436	0.549	0.066	1.187	2.390	3.577

APPENDIX I

Future Trends in Gross Food Energy Production Balances

The following tables set out the forecast food energy balances for each SWA Planning Unit without and with the various options identified for the development of water resources in the South West and South Central Regions of Bangladesh under the FAP-4 study. (Ref to Section 5.3).

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Southwest Area – Results of RAOM analyses
Future trends in Food Energy Balances
No development other than Groundwater
Expressed in G-kcal/year

PU	REQUIREMENTS					PRODUCTION				
	1991	1995	2000	2010	2020	1991	1995	2000	2010	2020
SW 1	1,395	1,511	1,644	1,852	2,046	1,285	1,302	1,324	1,345	1,338
SW 2	1,679	1,818	1,978	2,229	2,462	2,149	2,149	2,149	2,149	2,149
SW 3	1,345	1,457	1,585	1,786	1,972	887	963	1,059	1,154	1,148
SW 4	1,577	1,708	1,858	2,093	2,312	1,315	1,315	1,315	1,315	1,315
SW 5	533	577	627	707	781	385	414	450	486	484
SW 6	328	355	386	435	481	229	251	278	305	303
SW 7	1,607	1,740	1,893	2,133	2,356	752	856	985	1,114	1,109
SW 8	1,332	1,443	1,570	1,768	1,953	1,456	1,456	1,456	1,456	1,456
SW 9	1,014	1,098	1,194	1,346	1,487	723	723	723	723	723
SW 10	836	905	985	1,110	1,226	395	418	446	474	468
SW 11	1,771	1,917	2,086	2,350	2,596	537	537	537	537	537
SW 12	757	820	892	1,005	1,110	64	64	64	64	64
SW 13	1,279	1,385	1,507	1,698	1,876	523	557	599	641	635
SW 14	913	989	1,076	1,212	1,339	270	270	270	270	270
Total	16,365	17,723	19,282	21,724	23,997	10,971	11,274	11,654	12,033	12,000

SC 1	1,189	1,288	1,401	1,578	1,743	704	850	1,032	1,215	1,210
SC 2	627	679	739	832	919	427	505	602	699	697
SC 3	575	622	677	763	843	348	389	435	482	480
SC 4	637	690	750	845	934	257	298	339	376	374
SC 5	849	920	1,001	1,128	1,245	702	723	748	774	771
SC 6	529	573	624	703	776	330	334	339	344	342
SC 7	826	895	974	1,097	1,212	617	635	657	672	668
SC 8	1,801	1,950	2,122	2,390	2,641	1,019	1,031	1,046	1,061	1,051
SC 9	527	571	621	699	773	381	381	381	381	381
SC 10	433	469	510	575	635	313	315	318	321	319
SC 11	864	935	1,017	1,146	1,266	784	792	802	813	808
SC 12	442	478	520	586	647	259	261	264	267	265
SC 13	333	360	392	442	488	233	233	233	233	233
Totals	9,631	10,430	11,347	12,784	14,122	6,374	6,747	7,198	7,638	7,598

PU	SHORTAGES					SHORTAGES				
	1991	1995	2000	2010	2020	1991	1995	2000	2010	2020
SW 1	110	209	320	507	708	8%	14%	19%	27%	35%
SW 2	0	0	0	80	313	0%	0%	0%	4%	13%
SW 3	458	493	526	632	825	34%	34%	33%	35%	42%
SW 4	262	393	543	778	997	17%	23%	29%	37%	43%
SW 5	148	163	177	221	297	28%	28%	28%	31%	38%
SW 6	99	104	109	131	177	30%	29%	28%	30%	37%
SW 7	854	884	908	1,019	1,247	53%	51%	48%	48%	53%
SW 8	0	0	114	312	498	0%	0%	7%	18%	25%
SW 9	291	375	472	623	764	29%	34%	40%	46%	51%
SW 10	441	488	539	636	757	53%	54%	55%	57%	62%
SW 11	1,234	1,380	1,549	1,813	2,059	70%	72%	74%	77%	79%
SW 12	693	756	828	941	1,046	92%	92%	93%	94%	94%
SW 13	756	828	908	1,057	1,240	59%	60%	60%	62%	66%
SW 14	643	719	806	942	1,069	70%	73%	75%	78%	80%
Total	5,989	6,793	7,799	9,691	11,997	33%	36%	40%	45%	50%

SC 1	485	438	369	363	534	41%	34%	26%	23%	31%
SC 2	200	174	137	133	222	32%	26%	18%	16%	24%
SC 3	227	233	242	281	363	39%	38%	36%	37%	43%
SC 4	380	392	411	470	560	60%	57%	55%	56%	60%
SC 5	147	197	252	354	475	17%	21%	25%	31%	38%
SC 6	199	239	285	359	434	38%	42%	46%	51%	56%
SC 7	209	260	317	424	543	25%	29%	33%	39%	45%
SC 8	782	919	1,076	1,329	1,589	43%	47%	51%	56%	60%
SC 9	146	190	240	319	392	28%	33%	39%	46%	51%
SC 10	120	154	192	253	316	28%	33%	38%	44%	50%
SC 11	80	143	215	334	458	9%	15%	21%	29%	36%
SC 12	183	217	256	319	382	41%	45%	49%	54%	59%
SC 13	100	127	159	209	255	30%	35%	41%	47%	52%
Totals	3,257	3,683	4,149	5,146	6,524	34%	35%	37%	40%	46%

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Southwest Area - Results of RAOB analyses
Future trends in Food Energy Balances
Development without Augmentation
Expressed in G-kcal/year

PU	REQUIREMENTS						PRODUCTION					
	1991	1995	2000	2005	2010	2020	1991	1995	2000	2005	2010	2020
SW 1	1,395	1,511	1,644	1,748	1,852	2,046	1,285	1,302	1,324	1,334	1,344	1,336
SW 2	1,679	1,818	1,978	2,104	2,229	2,462	2,149	2,149	2,149	2,149	2,149	2,149
SW 3	1,345	1,457	1,585	1,685	1,786	1,972	887	982	1,115	1,142	1,169	1,162
SW 4	1,577	1,708	1,858	1,976	2,093	2,312	1,315	1,315	1,315	1,315	1,315	1,315
SW 5	533	577	627	667	707	781	385	414	483	492	500	497
SW 6	328	355	386	411	435	481	229	251	278	291	304	302
SW 7	1,607	1,740	1,893	2,013	2,133	2,356	752	892	1,127	1,186	1,244	1,238
SW 8	1,332	1,443	1,570	1,669	1,768	1,953	1,456	1,456	1,456	1,456	1,456	1,456
SW 9	1,014	1,098	1,194	1,270	1,346	1,487	723	722	722	722	722	722
SW 10	836	905	985	1,047	1,110	1,226	395	444	476	493	511	505
SW 11	1,771	1,917	2,086	2,218	2,350	2,596	537	537	537	537	537	537
SW 12	757	820	892	949	1,005	1,110	64	64	64	64	64	64
SW 13	1,279	1,385	1,507	1,602	1,698	1,876	523	659	721	738	755	749
SW 14	913	989	1,076	1,144	1,212	1,339	270	286	286	286	286	288
Total	16,365	17,723	19,282	20,503	21,724	23,997	10,971	11,472	12,053	12,205	12,357	12,321
SC 1	1,189	1,288	1,401	1,490	1,578	1,743	704	984	1,336	1,366	1,396	1,465
SC 2	627	679	739	785	832	919	427	505	602	650	698	696
SC 3	575	622	677	720	763	843	348	389	595	608	622	632
SC 4	637	690	750	798	845	934	257	298	339	370	401	399
SC 5	849	920	1,001	1,064	1,128	1,245	702	723	748	807	865	875
SC 6	529	573	624	663	703	776	330	334	542	546	549	558
SC 7	826	895	974	1,035	1,097	1,212	617	627	788	864	939	939
SC 8	1,801	1,950	2,122	2,256	2,390	2,641	1,019	1,031	1,308	1,767	2,227	2,247
SC 9	527	571	621	660	699	773	381	381	381	383	385	386
SC 10	433	469	510	542	575	635	313	315	326	327	328	324
SC 11	864	935	1,017	1,082	1,146	1,266	784	792	803	823	843	846
SC 12	442	478	520	553	586	647	259	261	264	268	272	269
SC 13	333	360	392	417	442	488	233	233	233	236	238	238
Totals	9,631	10,430	11,347	12,066	12,784	14,122	6,374	6,872	8,265	9,015	9,765	9,873
PU	SHORTAGES						SHORTAGES					
	1991	1995	2000	2005	2010	2020	1991	1995	2000	2005	2010	2020
SW 1	110	209	320	414	508	709	8%	14%	19%	23%	27%	35%
SW 2	0	0	0	40	80	313	0%	0%	0%	2%	4%	13%
SW 3	458	474	470	543	616	810	34%	33%	30%	32%	35%	41%
SW 4	262	393	543	661	778	997	17%	23%	29%	33%	37%	43%
SW 5	148	163	144	175	207	284	28%	28%	23%	26%	29%	36%
SW 6	99	104	109	120	131	179	30%	29%	28%	29%	30%	37%
SW 7	854	848	766	827	889	1,118	53%	49%	40%	41%	42%	47%
SW 8	0	0	114	213	313	498	0%	0%	7%	12%	18%	25%
SW 9	291	375	472	548	623	764	29%	34%	40%	43%	46%	51%
SW 10	441	462	509	554	599	721	53%	51%	52%	53%	54%	59%
SW 11	1,234	1,380	1,549	1,681	1,813	2,059	70%	72%	74%	76%	77%	79%
SW 12	693	756	828	885	941	1,046	92%	92%	93%	93%	94%	94%
SW 13	756	726	786	865	943	1,127	59%	52%	52%	54%	56%	60%
SW 14	643	703	790	859	927	1,051	70%	71%	73%	75%	76%	78%
Total	5,989	6,595	7,400	8,384	9,368	11,676	33%	35%	37%	40%	43%	49%
SC 1	485	304	65	124	182	279	41%	24%	5%	8%	12%	16%
SC 2	200	174	137	135	134	223	32%	26%	18%	17%	16%	24%
SC 3	227	233	83	112	141	211	39%	38%	12%	15%	18%	25%
SC 4	380	392	411	428	444	535	60%	57%	55%	54%	53%	57%
SC 5	147	197	253	257	262	371	17%	21%	25%	24%	23%	30%
SC 6	199	239	81	117	153	218	38%	42%	13%	17%	22%	28%
SC 7	209	268	186	172	158	273	25%	30%	19%	17%	14%	23%
SC 8	782	919	814	489	164	393	43%	47%	38%	23%	7%	15%
SC 9	146	189	240	277	314	387	28%	33%	39%	42%	45%	50%
SC 10	120	154	184	215	246	310	28%	33%	36%	39%	43%	49%
SC 11	80	143	215	259	303	420	9%	15%	21%	24%	26%	33%
SC 12	183	217	256	285	314	378	41%	45%	49%	51%	54%	58%
SC 13	100	127	159	181	204	250	30%	35%	41%	43%	46%	51%
Totals	3,257	3,557	3,082	3,051	3,020	4,249	34%	34%	27%	25%	24%	30%

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Southwest Area - Results of RAOB analyses
Future trends in Food Energy Balances
Gorai Augmentation only - No Ganges Barrage
Expressed in G-callyear

PU	REQUIREMENTS						PRODUCTION					
	1991	1995	2000	2005	2010	2020	1991	1995	2000	2005	2010	2020
SW 1	395	1,644	1,644	1,762	1,852	2,046	1,285	1,332	1,331	1,347	1,343	1,336
SW 2	579	1,978	1,978	2,121	2,229	2,462	2,149	2,166	2,166	2,166	2,166	2,166
SW 3	345	1,585	1,585	1,699	1,786	1,972	887	1,130	1,115	1,159	1,169	1,162
SW 4	577	1,858	1,858	1,992	2,093	2,312	1,315	1,371	1,371	1,593	1,593	1,593
SW 5	533	627	627	673	707	781	385	870	870	872	872	872
SW 6	328	386	386	414	435	481	229	306	320	478	478	478
SW 7	507	1,893	1,893	2,029	2,133	2,356	752	1,173	1,576	1,635	1,635	1,634
SW 8	332	1,570	1,570	1,683	1,768	1,953	1,456	1,456	1,456	1,456	1,456	1,456
SW 9	314	1,194	1,194	1,280	1,346	1,487	723	723	723	722	722	722
SW 10	336	985	985	1,056	1,110	1,226	395	514	514	865	863	857
SW 11	771	2,086	2,086	2,236	2,350	2,596	537	537	537	537	537	537
SW 12	757	892	892	956	1,005	1,110	64	66	66	66	66	66
SW 13	279	1,507	1,507	1,615	1,698	1,876	523	721	721	757	754	749
SW 14	913	1,076	1,076	1,154	1,212	1,339	270	286	286	286	286	286
Total	15,365	19,282	19,282	20,670	21,724	23,997	10,971	12,649	13,051	13,939	13,940	13,915
SC 1	189	1,401	1,401	1,502	1,578	1,743	704	1,336	1,336	1,383	1,396	1,465
SC 2	627	739	739	792	832	919	427	602	602	699	698	696
SC 3	575	677	677	726	763	843	348	595	595	604	622	632
SC 4	637	750	750	804	845	934	257	339	339	375	401	399
SC 5	349	1,001	1,001	1,073	1,128	1,245	702	748	748	774	864	875
SC 6	529	624	624	668	703	776	330	542	542	547	549	558
SC 7	326	974	974	1,044	1,097	1,212	617	789	788	926	939	939
SC 8	301	2,122	2,122	2,274	2,390	2,641	1,019	1,308	1,308	2,227	2,227	2,247
SC 9	527	621	621	665	699	773	381	381	381	381	385	385
SC 10	433	510	510	547	575	635	313	326	326	329	327	324
SC 11	364	1,017	1,017	1,091	1,146	1,266	784	802	802	813	842	846
SC 12	442	520	520	558	586	647	259	264	265	267	271	269
SC 13	333	392	392	420	442	488	233	233	233	233	238	238
Totals	9,631	11,347	11,347	12,164	12,784	14,122	6,374	8,265	8,265	9,556	9,759	9,873
PU	SHORTAGES						SHORTAGES					
	1991	1995	2000	2005	2010	2020	1991	1995	2000	2005	2010	2020
SW 1	110	312	313	416	509	709	8%	19%	19%	24%	27%	35%
SW 2	0	0	0	0	63	296	0%	0%	0%	0%	3%	12%
SW 3	458	455	469	540	617	810	34%	29%	30%	32%	35%	41%
SW 4	262	487	487	398	500	719	17%	26%	26%	20%	24%	31%
SW 5	148	0	0	0	0	0	28%	0%	0%	0%	0%	0%
SW 6	99	81	66	0	0	3	30%	21%	17%	0%	0%	1%
SW 7	854	720	317	395	498	722	53%	38%	17%	19%	23%	31%
SW 8	0	114	114	227	313	498	0%	7%	7%	13%	18%	25%
SW 9	291	472	472	558	623	764	29%	40%	40%	44%	46%	51%
SW 10	441	471	471	191	247	369	53%	48%	48%	18%	22%	30%
SW 11	1,234	1,549	1,549	1,699	1,813	2,059	70%	74%	74%	76%	77%	79%
SW 12	693	826	826	890	939	1,044	92%	93%	93%	93%	93%	94%
SW 13	756	786	786	858	943	1,127	59%	52%	52%	53%	56%	60%
SW 14	643	790	790	868	927	1,054	70%	73%	73%	75%	76%	79%
Total	5,989	7,063	6,662	7,039	7,992	10,173	33%	34%	32%	33%	36%	42%
SC 1	485	65	65	118	182	279	41%	5%	5%	8%	12%	16%
SC 2	200	137	137	93	134	223	32%	18%	18%	12%	16%	24%
SC 3	227	83	83	122	141	211	39%	12%	12%	17%	18%	25%
SC 4	380	411	411	429	445	535	60%	55%	55%	53%	53%	57%
SC 5	147	253	253	299	263	371	17%	25%	25%	28%	23%	30%
SC 6	199	81	81	122	154	218	38%	13%	13%	18%	22%	28%
SC 7	209	185	186	117	158	272	25%	19%	19%	11%	14%	22%
SC 8	782	814	814	48	164	393	43%	38%	38%	2%	7%	15%
SC 9	146	240	240	285	314	387	28%	39%	39%	43%	45%	50%
SC 10	120	184	184	218	248	310	28%	36%	36%	40%	43%	49%
SC 11	80	215	215	278	304	420	9%	21%	21%	25%	27%	33%
SC 12	183	256	255	291	315	378	41%	49%	49%	52%	54%	58%
SC 13	100	159	159	187	204	250	30%	41%	41%	45%	46%	51%
Totals	3,257	3,082	3,082	2,608	3,025	4,249	34%	27%	27%	21%	24%	30%

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Southwest Area – Results of RAOB analyses
Future trends in Food Energy Balances
Ganges Barrage Development Programme
Expressed in G-kcal/year

PU	REQUIREMENTS						PRODUCTION					
	1991	1995	2000	2005	2010	2020	1991	1995	2000	2005	2010	2020
SW 1	1 395	1,644	1,644	1,762	1,852	2,046	1,285	1 324	1,324	1,345	1,345	2,328
SW 2	1 679	1,978	1,978	2,121	2,229	2,462	2,149	2 166	2,166	2,166	2,375	2,375
SW 3	1 345	1,585	1,585	1,699	1,786	1,972	887	1 115	1,096	2,069	1,997	2 094
SW 4	1 577	1,858	1,858	1,992	2 093	2,312	1,315	1 371	1,371	1,593	2,425	2,425
SW 5	533	627	627	673	707	781	385	870	870	850	805	872
SW 6	328	386	386	414	435	481	229	306	320	472	472	478
SW 7	1 607	1,893	1,893	2,029	2 133	2,356	752	1 144	1,534	1,551	1,520	1 635
SW 8	1 332	1,570	1,570	1,683	1,768	1,953	1,456	1,456	1,456	1,456	2,136	2,136
SW 9	1 014	1,194	1,194	1,280	1,346	1,487	723	723	723	723	1,059	1,059
SW 10	836	985	985	1,056	1,110	1,226	395	511	511	863	819	857
SW 11	1 771	2,086	2,086	2,236	2,350	2,596	537	537	537	537	537	537
SW 12	757	892	892	956	1,005	1,110	64	64	64	64	64	66
SW 13	1 279	1,507	1,507	1,615	1,698	1,876	523	721	721	746	741	749
SW 14	913	1,076	1,076	1,154	1,212	1,339	270	286	286	286	286	286
Total	16,365	19,282	19,282	20,670	21,724	23,997	10,971	12,591	12,977	14,719	16,581	17,897
SC 1	1,189	1,401	1,401	1,502	1,578	1,743	704	1,336	1,336	1,383	1,396	1,465
SC 2	627	739	739	792	832	919	427	602	602	699	699	696
SC 3	575	677	677	726	763	843	348	595	595	604	622	632
SC 4	637	750	750	804	845	934	257	339	339	376	402	399
SC 5	849	1,001	1,001	1,073	1,128	1,245	702	748	748	774	866	875
SC 6	529	624	624	668	703	776	330	549	549	553	556	564
SC 7	826	974	974	1,044	1,097	1,212	617	789	788	927	939	939
SC 8	1,801	2,122	2,122	2,274	2,390	2,641	1,019	1,304	1,304	2,227	2,227	2,247
SC 9	527	621	621	665	699	773	381	381	381	381	385	385
SC 10	433	510	510	547	575	635	313	326	327	330	329	324
SC 11	864	1,017	1,017	1,091	1,146	1,266	784	802	802	813	844	846
SC 12	442	520	520	558	586	647	259	264	264	267	274	270
SC 13	333	392	392	420	442	488	233	233	233	233	238	238
Totals	9,631	11,347	11,347	12,164	12,784	14,122	6,374	8,267	8,267	9,566	9,777	9,879
PU	SHORTAGES						SHORTAGES					
	1991	1995	2000	2005	2010	2020	1991	1995	2000	2005	2010	2020
SW 1	110	320	320	417	507	0	8%	19%	19%	24%	27%	0%
SW 2	0	0	0	0	0	87	0%	0%	0%	0%	0%	4%
SW 3	458	469	488	0	0	0	34%	30%	31%	0%	0%	0%
SW 4	262	487	487	398	0	0	17%	26%	26%	20%	0%	0%
SW 5	148	0	0	0	0	0	28%	0%	0%	0%	0%	0%
SW 6	99	81	66	0	0	3	30%	21%	17%	0%	0%	1%
SW 7	854	749	359	479	613	721	53%	40%	19%	24%	29%	31%
SW 8	0	114	114	227	0	0	0%	7%	7%	13%	0%	0%
SW 9	291	472	472	558	287	428	29%	40%	40%	44%	21%	29%
SW 10	441	475	475	193	291	369	53%	48%	48%	18%	26%	30%
SW 11	1,234	1,549	1,549	1,699	1,813	2,059	70%	74%	74%	76%	77%	79%
SW 12	693	828	828	892	941	1,044	92%	93%	93%	93%	94%	94%
SW 13	756	786	786	870	957	1,127	59%	52%	52%	54%	56%	60%
SW 14	643	790	790	868	927	1,054	70%	73%	73%	75%	76%	79%
Total	5,989	7,121	6,735	6,601	6,335	6,890	33%	35%	33%	29%	24%	25%
SC 1	485	65	65	119	182	279	41%	5%	5%	8%	12%	16%
SC 2	200	137	137	93	133	223	32%	18%	18%	12%	16%	24%
SC 3	227	83	83	122	141	211	39%	12%	12%	17%	18%	25%
SC 4	380	411	411	429	443	535	60%	55%	55%	53%	52%	57%
SC 5	147	253	253	299	262	371	17%	25%	25%	28%	23%	30%
SC 6	199	75	75	115	146	212	38%	12%	12%	17%	21%	27%
SC 7	209	185	186	117	158	273	25%	19%	19%	11%	14%	23%
SC 8	782	818	818	48	164	393	43%	39%	39%	2%	7%	15%
SC 9	146	240	240	285	314	387	28%	39%	39%	43%	45%	50%
SC 10	120	184	183	217	245	310	28%	36%	36%	40%	43%	49%
SC 11	80	215	215	278	302	420	9%	21%	21%	25%	26%	33%
SC 12	183	256	256	290	312	378	41%	49%	49%	52%	53%	58%
SC 13	100	159	159	187	204	250	30%	41%	41%	45%	46%	51%
Totals	3,257	3,080	3,080	2,598	3,007	4,243	34%	27%	27%	21%	24%	30%

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Table J.1
Estimates of Flood Damages for the year 1987
Value figures in Million Tk (in 1988 constant terms)

District	Damaged Dwellings			Cattle killed			Damaged Roads		Dam. embank.		Office build		Dam. Bridges		Estimate of total damages	
	Fully No.	Partial No.	Value (1)	No.	Value (2)	Fully km	Partial km	Value (3)	km	Value (4)	No.	Value (5)	No.	Value (6)	Total	Value per km ²
Faridpur	1,153	4,505	5.9	110	0.4	--	89	2.2	--	--	2	0	1	0.3	65.6	52
Madanpur	6,900	9,750	21.6	766	2.7	--	684	17.1	15	6.5	--	--	9	2.9	226.0	240
Sariatpur	800	1,800	3.0	--	--	--	7	--	--	--	--	--	--	--	3.0	4
Rajbari	27,254	46,312	91.6	666	2.3	93	373	16.3	135	60.8	13	2	79	25.3	293.0	400
Gopalganj	4,080	28,975	31.3	196	0.7	--	866	21.6	13	5.9	5	1	81	25.9	188.6	192
Khustia	5,716	18,278	26.1	53	0.2	--	729	18.2	14	6.3	--	--	20	6.4	93.4	76
Bagerhat	136	--	0.3	450	1.6	217	45	17.4	--	--	--	--	--	--	32.0	27
Magura	55	--	0.1	--	--	--	--	--	2	0.9	--	--	--	--	5.0	8
Jessore	2,125	7,024	9.9	62	0.2	--	444	11.1	--	--	1	0	--	--	101.0	59
Narail	545	1,080	2.0	5	--	23	82	3.8	27	12.2	--	--	3	1.0	76.0	129
Satkhira	515	4,465	4.6	34	1.0	--	265	6.6	--	--	--	--	8	2.6	21.0	16
Chuadanga	1,004	4,963	6.0	1	--	--	246	6.1	--	--	--	--	--	--	45.0	69
Meherpur	1,060	1,180	3.0	25	1.0	--	6	0.1	--	--	--	--	2	0.6	25.0	62
Pirojpur	1,284	4,125	5.9	107	4.0	45	--	3.3	--	--	--	--	25	8.0	38.0	26
Barisal	14,400	15,200	50.0	26	1.0	--	--	--	--	--	--	--	1	0.3	72.0	39

nazir/vlab-05

Notes :

- 1) Estimated value of fully damaged dwelling Tk. 2,000 - Tk. 800 per partially damaged dwelling
- 2) Estimated values Tk. 3,500
- 3) Estimated cost of road reconstruction/repair : Tk. 75,000 fully damaged, Tk. 25,000 partially damaged.
- 4) Estimated value Tk. 460,000 for fully, Tk. 150,000 for partially damaged embankments.
- 5) Estimated value of damaged offices Tk. 150,000
- 6) Estimated value of damaged bridges Tk. 320,000

Source: Ministry of Relief and Rehabilitation

Table J.2

Estimates of Flood Damages for the year 1988
Value figures in Million Tk (in 1988 constant terms)

District	Damaged Dwellings			Cattle killed			Damaged Roads		Dam. embank.		Office build		Dam. Bridges		Estimate of total damages	
	Fully No.	Partial No.	Value (1)	No.	Value (2)	Fully km	Partial km	Value (3)	km	Value (4)	No.	Value (5)	No.	Value (6)	Total	Value per km ²
Faridpur	89,268	175,111	318.6	612	2.1	1,929	247	150.9	227	102.0	6	0.9	68	22	932.7	740
Madaripur	7,773	22,452	33.5	2,169	7.6	1,521	--	114.1	42	18.9	--	--	180	58	360.3	362
Sariatpur	56,137	116,939	206.8	2,076	7.3	2,064	--	154.8	--	--	8	1.2	56	18	494.2	584
Rajbari	22,802	45,662	82.1	4,063	14.2	1,306	--	97.9	129	58.0	341	51.1	--	--	418.6	572
Gopalganj	21,419	106,653	128.2	433	1.5	1,348	--	101.1	--	--	65	9.8	--	--	440.6	449
Khustia	4,474	16,569	22.4	204	0.7	--	311.7	7.8	84	37.7	--	--	29	9	113.3	92
Bagerhat	1,313	4,700	6.4	146	0.5	187	--	14.0	20	8.8	--	--	--	--	52.0	43
Magura	108	370	0.5	22	0.1	524	--	39.3	5	2.3	--	--	6	2	52.4	86
Jessore	42	385	0.3	--	--	--	337	8.4	--	--	--	--	--	--	27.5	16
Narail	2,204	19,500	20.0	295	1.0	690	--	51.8	123	55.4	7	1.1	4	1	173.3	294
Satkhira	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chuadanga	--	15	0.1	--	--	--	7.4	0.2	--	--	--	--	--	--	1.6	3
Meherpur	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pirojpur	4,788	8,900	16.7	128	0.4	153	--	11.5	34	153.0	--	--	23	7	81.4	158
Barisal	17,937	77,275	97.7	2,395	8.3	986	--	74.0	57	25.6	--	--	--	--	304.9	186
Bhola	1,218	1,833	3.9	48	0.2	241	103	20.7	26	11.7	87	13.1	--	--	50.9	44
Khulna	233	1,325	1.5	26	0.1	17	--	1.3	20	9.0	--	--	--	--	14.6	8

Notes :

- 1) Estimated value of fully damaged dwelling Tk. 2,000 - Tk. 800 per partially damaged dwelling
- 2) Estimated values Tk. 3,500
- 3) Estimated cost of road reconstruction/repair : Tk. 75,000 fully damaged, Tk. 25,000 partially damaged.
- 4) Estimated value Tk. 480,000 for fully, Tk. 150,000 for partially damaged embankments.
- 5) Estimated value of damaged offices Tk. 150,000
- 6) Estimated value of damaged bridges Tk. 320,000

Source: Ministry of Relief and Rehabilitation

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