

60. Production of Crops. Progress in the production of main crops is shown in the table below.

Table 48  
Production of Main Crops

(In thousand)																			
Sr. No.	Crops	Unit	1961/62	1969/70	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85 (Provi- sional Actual)	1985/86 (Provi- sional Actual)			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17			
1	Paddy	Basket	327539	382678	411371	441269	446644	452476	504597	500772	638257	677996	688858	634769	683207	693305			
		Metric ton	6834	7985	8583	9207	9319	9462	10528	10448	13317	14146	14372	14287	14255	14456			
2	Wheat	Basket	454	1023	1968	1732	2339	2869	1275	2782	3575	3794	3982	6539	6316	7157			
		Metric ton	15	34	64	57	76	93	42	90	117	124	130	214	206	234			
3	Maize	Basket	2233	1908	2607	2462	2337	3016	3080	5070	6668	8260	9588	12402	12158	15133			
		Metric ton	56	48	65	61	58	75	77	126	167	206	239	309	303	378			
4	Matpe	Basket	828	539	723	453	373	1220	1382	2052	1804	1837	1660	2636	2402	2778			
		Metric ton	27	17	23	15	12	40	45	67	59	60	54	86	78	91			
5	Pedisein	Basket	245	323	178	146	173	200	254	249	320	457	564	668	932	1251			
		Metric ton	8	10	6	5	6	6	8	8	10	15	18	22	30	41			
6	Butter bean	Basket	373	856	1180	1095	1041	1288	1300	1312	1596	2388	2509	3019	3621	3976			
		Metric ton	12	26	37	35	33	41	41	57	50	74	78	95	113	125			
7	Suitapya	Basket	74	399	526	561	846	975	922	723	945	931	945	1092	936	741			
		Metric ton	2	12	16	17	26	30	28	22	29	29	29	34	29	23			
8	Soya bean	Basket	325	389	411	382	506	484	481	460	527	590	650	676	718	679			
		Metric ton	10	12	13	12	16	16	16	15	17	19	20	22	23	22			
9	Gram	Basket	1469	1951	2141	2182	3021	3232	3047	1216	3269	4971	4016	5537	4398	7460			
		Metric ton	46	61	67	68	94	102	96	39	103	155	128	172	138	234			
10	Peasindon	Basket	750	710	846	747	588	402	617	628	815	1241	1028	1136	1488	1631			
		Metric ton	24	23	28	24	19	13	20	20	26	41	34	38	49	53			

Table 48 (Contd.)

## Production of Main Crops

Sr. No.	Crops	Unit	(In thousand)														
			1961/62	1969/70	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85 (Provi- sional actual)	1985/86 (Provi- sional)	
1		B	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
11	Other pulses	Basket Metric ton	3965 126	2888 112	2919 94	2609 82	3474 111	3572 113	3464 110	4437 141	3518 113	3841 122	4033 130	4807 153	4428 143	4567 146	
12	Groundnut	Basket Metric ton	34685 393	39113 444	41159 466	36229 410	37289 423	40946 464	34406 390	30177 342	38591 438	50533 573	48498 550	46878 532	58786 667	57433 651	
13	Sesamum	Basket Metric ton	3123 76	4154 102	3884 96	5485 134	3777 92	4536 111	8555 209	4488 110	6416 157	7340 180	8087 198	8442 207	10322 253	10989 269	
14	Sunflower	Basket Metric ton			116 1	128 1	312 3	1342 13	1565 14	909 13	2266 33	4866 71	4866 71	7829 114	9758 141	12816 186	
15	Cotton	Vias Metric ton	12841 21	20401 35	26284 43	22814 38	19556 31	25538 42	31802 52	30434 50	45324 74	58344 96	59727 99	63700 104	76995 126	68548 112	
16	Jute	Vias Metric ton	6530 6	13400 22	24397 40	22985 38	16934 27	34167 56	58689 96	59168 97	60406 99	20187 34	39300 64	33336 55	31861 52	30513 50	
17	Rubber	Lb Metric ton	55657 25	28462 13	33409 15	32001 14	32938 15	33116 15	34048 15	34581 15	34911 16	35334 16	37716 17	34747 16	34284 16	35744 16	
18	Sugarcane	Long ton Metric ton	1072 1089	1291 1312	1185 1204	1605 1631	1600 1626	1763 1791	1812 1841	1438 1461	2003 2035	2693 2736	3660 3719	3605 3662	3708 3767	3726 3786	
19	Burmese tobacco	Vias Metric ton	22126 36	23791 39	21843 36	27247 45	36210 59	31731 55	27132 45	28965 48	29630 49	28894 47	32288 53	35678 58	38715 63	40682 66	
20	Virginia tobacco (green)	Vias Metric ton	9321 13	9210 14	12025 19	7412 12	12944 21	14956 24	28626 47	24678 41	17340 28	18937 30	21737 36	26717 44	25168 41	41535 68	

61. Yield Per Acre of Crops. Yield per acre of main crops is shown in the table below.

Table 49

Yield Per Acre of Main Crops

Sl. No.	Crops	Unit	1961/62	1969/70	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85 (Provi- sional actual)	1985/86 (Provi- sional)
1	Paddy	46 lb (basket)	31.16	31.15	34.09	35.51	36.80	37.73	40.75	45.62	63.80	57.06	61.10	59.43	66.09	59.98
2	Wheat	72 lb (basket)	5.11	6.88	9.23	8.09	10.86	12.71	6.24	13.71	13.75	16.53	15.65	19.76	21.60	22.78
3	Maize	55 lb (basket)	13.31	11.19	13.31	12.95	12.50	15.43	14.97	20.50	18.68	23.78	26.55	27.77	26.43	28.85
4	Murpe	72 lb (basket)	7.42	4.97	5.92	4.99	6.64	8.08	7.31	10.00	9.28	9.42	10.67	12.34	12.41	13.30
5	Pedisein	72 lb (basket)	3.06	3.42	3.14	3.07	3.80	3.67	3.97	6.40	4.27	5.27	6.72	6.83	7.01	7.76
6	Butter bean	69 lb (basket)	5.27	6.76	6.06	7.27	7.88	8.96	8.95	11.40	15.99	17.73	20.20	16.52	17.64	18.54
7	Sultapya	69 lb (basket)	8.60	5.28	4.85	5.38	7.41	7.72	7.06	10.49	7.10	8.76	8.70	10.03	9.91	10.02
8	Soya bean	72 lb (basket)	8.74	8.61	7.93	7.16	8.56	8.47	8.56	8.60	8.64	8.90	9.59	10.02	10.32	10.17
9	Gram	69 lb (basket)	5.61	6.25	6.68	6.46	7.85	7.76	7.67	7.01	8.65	10.90	10.50	11.54	10.62	11.80
10	Pesingon	72 lb (basket)	4.66	4.98	4.65	4.73	5.54	4.92	5.11	8.13	5.40	7.11	7.33	8.25	7.72	8.43
11	Groundnut	25 lb (basket)	25.53	26.54	25.23	22.18	26.44	29.42	26.65	26.80	31.89	36.82	36.34	36.22	38.37	38.43
12	Sesamum	54 lb (basket)	2.82	2.53	2.40	3.34	2.55	3.03	3.62	2.88	3.64	3.84	3.50	4.44	4.15	4.18
13	Supflower *	32 lb (basket)			14.48	14.73	14.88	15.92	12.81	16.64	18.70	21.23	21.46	24.81	27.26	29.50
14	Cotton	Viss	30.66	69.48	62.16	59.28	61.77	79.40	78.15	86.02	95.32	117.72	124.33	128.17	136.11	130.27
15	Jute	Viss	182.45	178.68	212.25	219.07	204.61	238.22	250.62	255.55	268.51	240.76	269.76	261.76	258.97	272.89
16	Rubber	lb	369.54	233.82	275.96	277.30	285.54	287.52	288.99	294.62	303.06	307.79	348.80	322.03	323.37	329.13
17	Sugarcane	Long ton	12.08	13.18	13.31	14.11	14.59	14.14	14.71	14.00	17.99	21.01	24.83	25.46	24.64	23.61
18	Burmese tobacco	Viss	218.20	204.11	227.00	225.38	233.22	236.78	225.14	250.64	248.60	251.84	328.19	300.09	306.00	334.91
19	Virginia Tobacco (green)	Viss	1380.36	777.13	1002.07	677.32	914.42	871.66	1001.92	900.98	837.29	851.74	885.06	1085.59	1099.48	1313.43

\* The weight of one basket was 21 lbs from 1973/74 to 1978/79. Starting from 1979/80, one basket was calculated at 22 lbs due to cultivation of quality seeds.

62. Cultivation of High Yield Variety Paddy. Total sown acreage of high yield variety paddy is shown in the table below.

Table 50

Total Sown Acreage of High Yield Variety Paddy

Sr. No.	Year	Sown acreage (Thousand)	Matured acreage (Thousand)	Yield per acre (Basket)	Production (Thousand basket)
1	2	3	4	5	6
1	1974/75	3400	3269	42.46	138798
2	1975/76	4272	4166	42.16	175625
3	1976/77	4208	4078	46.02	187696
4	1977/78	4727	4562	46.80	213537
5	1978/79	6255	6112	50.34	307680
6	1979/80	7282	6287	54.09	340060
7	1980/81	8515	7998	62.49	499754
8	1981/82	10305	9800	62.33	610806
9	1982/83	9632	9081	67.19	610161
10	1983/84	9374	9059	65.03	589062
11	1984/85 (Provisional actual)	9582	9038	65.41	591161
12	1985/86 (Provisional)	9442	9149	65.37	598111

63. High Yield Variety Paddy. Cultivation of high yield variety paddy is shown in the table below.

Table 51  
High Yield Variety Paddy

Sr. No.	Variety of Paddy	Year	Sown acreage	Matured acreage	Yield per acre (Basket)	Production (Thousand basket)
1	2	3	4	5	6	7
1	Ngwe toe	1981/82	139009	133011	66.15	8799
		1982/83	139600	129536	64.66	8376
		1983/84	136361	129215	66.99	8656
		1984/85	133455	124431	70.46	8733
		(Provisional actual)				
		1985/86 (Provisional)	132317	128610	68.53	8914
2	Shwewar Htun	1981/82	2018065	1958848	76.03	148522
		1982/83	2104134	2050023	81.34	166741
		1983/84	2266829	2232718	76.10	169910
		1984/85	2182220	2107238	78.00	164366
		(Provisional actual)				
		1985/86 (Provisional)	2187288	2152083	74.69	160748
3	Manawhari	1981/82	1426591	1282562	65.12	83515
		1982/83	1261915	1077181	66.86	72024
		1983/84	1233222	1231548	63.09	72025
		1984/85	1236738	1131665	62.00	70162
		(Provisional actual)				
		1985/86 (Provisional)	1038358	977431	63.02	61598
4	Shwetasoke	1981/82	1227746	1190750	75.08	89396
		1982/83	1422908	1375434	77.26	106265
		1983/84	1322892	1302657	75.44	98273
		1984/85	1254774	1197658	73.11	87555
		(Provisional actual)				
		1985/86 (Provisional)	1135560	1107597	73.38	81280

Table-51 (Concl'd.)  
High Yield Variety Paddy

Sr. No.	Variety of Paddy	Year	Sown acreage	Matured acreage	Yield per acre (Basket)	Production (Thousand basket)
1	2	3	4	5	6	7
5	Seintalay	1981/82	178502	169364	67.06	11358
		1982/83	171058	155380	68.06	10575
		1983/84	151201	145530	61.45	8943
		1984/85	131313	120691	60.20	7265
		(Provisional actual)				
		1985/86	120698	118094	63.02	7443
		(Provisional)				
6	Eyamin	1981/82	6250	6067	77.23	469
		1982/83	27612	27040	80.51	2177
		1983/84	73653	72512	79.64	5775
		1984/85	118045	115121	78.38	9023
		(Provisional actual)				
		1985/86	144788	143560	74.27	10662
		(Provisional)				
7	Manawthukha	1982/83	20180	18382	72.34	1330
		1983/84	22650	21641	70.56	1527
		1984/85	62208	58040	72.09	4184
		(Provisional actual)				
		1985/86	138123	131815	70.62	9309
		(Provisional)				

64. Special High Yield Variety Paddy Programme. Townshipwide cultivation of special high yield variety paddy is shown in the table below.

Table 52

Townshipwide Special High Yield Variety Paddy Cultivation

Sr. No.	Year	Number of townships	Sown acreage (Thousand acres)	Matured acreage (Thousand acres)	Yield: per acre (Basket)	Production (Thousand basket)
1	2	3	4	5	6	7
1	1977/78	2	236	227	57.11	12980
2	1978/79	23	2101	2042	55.67	113665
3	1979/80	43	3295	2993	60.53	181148
4	1980/81	72	5703	5466	65.91	360302
5	1981/82	78	6426	6168	67.24	414703
6	1982/83	82	6445	6163	70.40	433911
7	1983/84	82	6349	6182	68.37	422666
8	1984/85 (Provisional actual)	82	6340	6041	69.20	418057
9	1985/86 (Provisional)	82	6315	6154	68.40	420896

65. Special High Yield Variety Crops Programme. The townshipwide cultivation of special high yield varieties for selected crops other than paddy are shown in the table below.

Table 53

Townshipwide Cultivation of Special High Yield Varieties other than Paddy

Sr. No.	Particulars	Unit	1981/82	1982/83	1983/84	1984/85 (Provi- sional actual)	1985/86 (Provi- sional)
1	2	3	4	5	6	7	8
1	Wheat						
1	Number of townships		8	14	14	13	13
2	Sown acreage	Acre	142869	215546	271019	250253	254136
3	Yield per acre	Basket	17.17	14.21	20.20	22.92	24.05
2	Miaze						
1	Number of townships		9	9	9	9	9
2	Sown acreage	Acre	76931	94611	106937	118897	120325
3	Yield per acre	Basket	32.89	37.70	39.46	35.50	39.06
3	Pulses						
1	Number of townships		11	15	15	15	16
2	Sown acreage	Acre	187091	249847	271202	260843	335002
3	Yield per acre	Basket	14.29	15.08	15.65	13.99	15.99
4	Groundnut						
1	Number of townships		11	15	15	15	15
2	Sown acreage	Acre	209915	236574	243037	254086	271788
3	Yield per acre	Basket	46.42	48.34	47.60	47.33	49.89
5	Sesamum						
1	Number of townships		4	5	5	5	5
2	Sown acreage	Acre	72703	110741	109977	118357	122742
3	Yield per acre	Basket	7.42	8.58	7.37	7.67	7.62

Table 53 (Concl'd.)  
Townshipwide Cultivation of Special High Yield Varieties other than Paddy

Sr. No.	Particulars	Unit	1981/82	1982/83	1983/84	1984/85 (Provi- sional actual)	1985/86 (Provi- sional)
1	2	3	4	5	6	7	8
6	Sunflower						
1	Number of townships		3	6	6	6	6
2	Sown acreage	Acre	19040	73998	64100	81281	84535
3	Yield per acre	Basket	31.13	25.34	27.02	31.93	37.04
7	Longstaple cotton						
1	Number of townships		2	4	3	3	3
2	Sown acreage	Acre	27108	39548	35133	38921	41296
3	Yield per acre	Viss	238.96	296.95	194.63	203.82	214.34
8	Jute						
1	Number of townships		1	1	1	1	1
2	Sown acreage	Acre	12281	22153	21549	23998	26102
3	Yield per acre	Viss	208.34	300.00	260.84	280.00	322.93
9	Sugarcane (matured)						
1	Number of townships	Acre	4	5	5	5	5
2	Sown acreage	Long ton	65708	80717	76221	77081	75350
3	Yield per acre		26.25	29.09	31.54	30.81	30.19
10	Potatoes						
1	Number of townships		3	3	3	3	3
2	Sown acreage	Acre	19502	20723	20692	21322	22146
3	Yield per acre	Viss	2478.07	2774.40	3029.72	3223.57	3260.69

66. Production and Uses of Agricultural Crops. Production and uses of selected agricultural crops are shown in the table below.

Table 54

Production and Uses of Selected Agricultural Crops

Sr. No.	Crops	1983/84 (Actual)				1984/85 (Provisional Actual)				1985/86 (Provisional)			
		Pro duction	Exports	Imports	Domestic use*	Pro duction	Exports	Imports	Domestic use*	Pro duction	Exports	Imports	Domestic use*
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Paddy	14287416	1313356		12974060	14254825	902897		13351928	14465506	1061113		13404193
2	Wheat	213557		52261	265818	106372		20870 <sup>x</sup>	227142	233733			233733
3	Maize (Maize Cob and Maize Sheath)	310080	17567		292513	304146	29996		274150	377618	51000		326618
4	Pulses	623127	65291		557036	603343	72227 <sup>**</sup>		531116	734708	103882		630826
5	Groundnut	531569			531569	666593			666593	651247			651247
6	Senamum	206760	80		206680	252814	60		252754	269141			269141
7	Chillies <sup>**</sup>	40604			40604	33462			33462	32952			32952
8	Onion	188768			188768	183105			183105	219541			219541
9	Garlic	32899			32899	35216			35216	33225			33225
10	Potatoes	155889			155889	177862			177862	183999			183999
11	Baled Jute	28089			28089	23503	2004		21499	30500			30500
12	Canned Cotton	34452	2051	1828	34229	41723	1255	2274	42742	36979	1219	2752	38512
13	Sugarcane	3662353			3662353	3766970			3766970	3785622			3785622
14	Rubber	15760	9282		6478	15550	9822		6728	16212	4847		11365
15	Burmese tobacco	58257			58257	63217			63217	66427			66427
16	Virginia tobacco (cured)	6352			6352	5467			5467	4537	300		4237

\* Domestic consumption, stocks, seed, various uses and wastages are included in domestic use.

+ Rice export being converted in terms of paddy.

x Wheat flour import being converted in terms of wheat grain.

\*\* Gram split export being converted in terms of gram whole.

++ Green chillies being converted in terms of dried chillies

67. Agricultural Production by Type of Crops. The progress of agricultural production by type of crops is shown in the table below.

Table 55

Agricultural Production by Type of Crops

(Quantum Index 1969/70=100)

Sr. No.	Type of crops	(Tons)												
		1961/62	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85 (Provisional actual)	1985/86 (Provisional)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Cereals	82.8	108.2	115.7	118.2	120.9	132.0	137.3	169.4	179.7	183.3	188.1	185.5	188.5
2	Beans and pulses	91.3	108.8	101.2	125.8	140.3	139.4	139.9	152.8	192.1	180.4	229.7	217.6	265.1
3	Oil seeds	84.1	102.1	104.3	93.9	109.4	127.1	89.3	120.8	159.7	163.0	171.7	213.7	227.3
4	Fibre	45.5	146.0	134.8	106.2	181.4	277.9	277.9	317.6	219.4	284.4	276.1	306.9	277.1
5	Other industrial crops	70.6	108.5	117.3	117.3	129.8	123.5	116.1	131.1	149.6	178.5	191.4	210.3	236.3
6	Tobacco and allied products	58.7	111.2	122.4	147.7	143.5	134.1	139.6	137.8	134.5	170.0	168.1	169.1	180.1
7	Spices	69.3	94.2	90.1	125.6	122.0	100.8	139.8	111.8	123.4	132.2	161.5	150.2	159.6
8	Other edible crops	63.6	119.4	125.2	138.9	135.1	138.2	204.1	160.8	162.1	190.4	194.8	204.4	209.9
9	Medicinal plants		100.0	166.7	221.3	666.7	500.0	216.7	200.0	414.5	648.7	808.0	531.8	563.0
10	Other inedible crops	59.9	116.6	122.9	130.2	134.8	139.5	143.9	158.5	167.2	172.8	180.7	174.4	183.5
	Total	76.6	108.8	113.8	119.0	124.6	132.6	137.8	154.4	167.9	177.2	185.9	192.4	200.7

## II. LIVESTOCK AND FISHERY

### Plan Implementation of the Livestock and Fishery Sector during the Fourth Four-Year Plan

68. A review of plan performance of the livestock and fishery sector over the Fourth FYP period indicates that the value of net output at 1969/70 constant prices amounted to K 1134.1 million in 1982/83 as compared with the annual plan target of K 1160.8 million, achieving 97.7 per cent. In 1983/84, the value of net output amounted to K 1213.4 million as compared with the plan target of K 1281.8 million achieving 94.7 per cent. The value of net output was planned to increase to K 1362.0 million in 1984/85, while actual performance amounted to K 1330.7 million, achieving 97.7 per cent of the target. In 1985/86, the value of net output amounted to K 1402.8 million as against the target of K 1422.9 million, achieving 98.6 per cent. The average annual performance recorded for the four-year period was 97.2 per cent. A comparison of the plan performance of the livestock and fishery sector as against the targets of the Fourth FYP approved by the Third Pyithu Hluttaw and annual plan targets is presented in the following table:-

Plan Implementation of the Livestock and Fishery Sector  
during the Fourth Four Year Plan

Sr. No.	Particulars	Value of net output (K. million)			Performance (Percentage)	
		Fourth Four-Year Plan Target	Annual Plan Target	Performance	Against Fourth Four-Year Plan	Against Annual Plan
1	2	3	4	5	6	7
1	1982/83	1160.8	1160.8	1134.1	97.6	97.7
2	1983/84	1256.5	1281.8	1213.4	96.5	94.7
3	1984/85	1371.5	1362.0	1330.7	97.0	97.7
4	1985/86	1498.2	1422.9	1402.8	93.6	98.5
5	Annual average for four years	1321.8	1306.9	1270.3	96.1	97.2

Progress of the Livestock and Fishery Sector during the Fourth Four-Year Plan

69. A review of the growth rates of the livestock and fishery sector during the Fourth FYP period reveals that the value of net output rose by 3.5 per cent in 1982/83, 7.0 per cent in 1983/84, 9.7 per cent in 1984/85, and 5.4 per cent in 1985/86. The average annual rate of growth recorded during the Fourth FYP period was 6.4 per cent.

Measures Taken for Achievement of the Plan Targets of the Livestock and Fishery Sector

70. The principal objectives of the livestock and fishery sector during the Fourth FYP were to step up meat and fish production required for domestic consumption to stabilize prices and expand export of prawn and marine fish after meeting domestic consumption, to promote production of draught cattle for agriculture, to increase production of milk and milk products for imports substitution and to increase production of pearls for export.
71. Measures taken to achieve the above objectives comprised promotion of integrated farming, expansion of meat and fish production of the co-operative sector, provision of necessary assistance for the development of small-scale livestock breeding, increase in distribution of animal feed and medicines, dissemination of improved methods of livestock breeding, distribution of fingerlings, strict enforcement of fishery acts to prevent depletion of fresh water fish stock, distribution of fishing gears and implements, expansion of modern marine fishing, undertaking of marine fishery exploration and experimental prawn culture, and to strive for production of quality fish, and prawns for export.
72. Programmes had been drawn up to implement the above measures to promote livestock breeding during the plan period. These include, among others, distribution of pedigree stocks of draught cattle, milch cows, beef cattle, pigs, broilers, upgrading of local breeds and propagation of quality breeds through expansion of artificial insemination services, reorganization of some inefficient breeding farms under the Livestock Breeding Corporation in order to improve their operating efficiency and also to facilitate adoption of more appropriate and improved techniques of livestock farming.

73. With a view to improving the performance of the State breeding farms, programmes had been implemented to achieve a more productive herd structure by breeding selected breeds of animals more suitable to local climatic and ecological conditions. Accordingly first priority was accorded to production and distribution of pedigree stocks, and, second priority to meat production. Moreover, pedigree stock, animal feeds and other inputs had been distributed to foster the development of small-scale livestock breeding.
74. A review of the progress in the distribution of pedigree stock during the plan period reveals that 1155 head of cattle, 916 numbers of sheep and goats, 16415 numbers of pigs, 6.12 million numbers of fowls and 1.61 million numbers of ducks had been distributed to the farmers and livestock breeders by the State breeding farms to promote draught cattle breeding and to step up the production of meat, dairy product and egg for domestic consumption.
75. During the Fourth FYP period, the breeding of draught cattle was extended. Consequently the number of draught cattle rose to 6516 thousand head in 1985/86 registering an increase of 566 thousand head as compared with the base year 1981/82.
76. Sustained efforts had been made to promote livestock breeding over the plan period. The progress in the number of selected animals in 1985/86 as compared with the base year 1981/82 was as follows:-
- cattle increased from 8857 thousand to 9718 thousand
  - buffalo from 1969 thousand to 2143 thousand
  - sheep and goat from 1019 thousand to 1527 thousand
  - pig from 2631 thousand to 2955 thousand
  - fowl from 27.23 million to 32.68 million
  - duck from 4.56 million to 6.11 million
77. With a view to promoting livestock development, the Livestock Breeding and Veterinary Department had expanded works on artificial insemination. An average of 54123 head of cattle and 4216 pigs had been artificially inseminated annually over the four-year period. In addition, provision of various extension services to upgrade local breeds had also been extended.

78. In order to promote the development of livestock farming, the State organizations carried out increased distribution of essential inputs such as animal feed and medicines. The Livestock Breeding Corporation distributed K 3.11 million worth of animal feed annually and the Agricultural and Farm Produce Trade Corporation, K 124.18 million worth of animal feed annually during the plan period. In addition, the Medicine and Medical Stores Corporation distributed annually K 15.48 million worth of medicines.
79. With a view to enhancing domestic supply of animal feed, pasture improvement works had been undertaken at an average annual rate of 5503 acres during the plan period.
80. In order to step up provision of animal health services, the Livestock Breeding and Veterinary Department implemented Development of Animal Virus Vaccines Project Phase II and III, Veterinary Diagnostic Laboratories Project, Foot and Mouth Disease Virus Typing and Surveillance Project and Hog Cholera Project over the plan period.

Production of Livestock Products

81. A review of the progress in meat production over the plan period reveals that the total meat production rose to 123.2 million viss in 1985/86 as compared with 99.7 million viss in 1981/82. The performance in annual meat production shows that meat production totalled 110.3 million viss in 1982/83, 113.0 million viss in 1983/84, 117.2 million viss in 1984/85 and 123.2 million viss in 1985/86. Thus, meat consumption per capita also rose from 2.91 viss in 1981/82 to 3.32 viss in 1985/86.
82. In order to promote livestock breeding, and also disseminate modern livestock farming practices, the Livestock Breeding Corporation implemented Burma Livestock Project, Livestock Industries Development Project, and Transfer of Technology in Pig and Poultry Breeding Project over the plan period. In addition, the Livestock Breeding and Veterinary Department implemented Small Farms Animal Production Development Project.

## FISHERY

83. In order to promote fish culture, the Department of Fisheries distributed fingerlings of induced breeding by hypophysation. In support of the programmes for increasing distribution of fingerlings, the area of hatcheries under the department had been extended from 239 acres in 1981/82 to 266 acres in 1985/86, registering an increase of 27 acres during the plan period. Thus the distribution of fingerlings comprising Mrigal (Ngagyin) and common carp (Shwewa Ngagyin) increased from 7.1 million numbers in 1981/82 to 10.0 million numbers in 1985/86.
84. The Department of Fisheries took effective measures for enforcing the Fishery Manual and dissemination of necessary and relevant information to prevent depletion of fresh water fish stock.
85. Due to the various measures taken to promote fish culture, the area of fish ponds rose from 4629 acres in 1981/82 to 6852 acres in 1985/86.
86. Moreover, sustained efforts had been made to rehabilitate leasable fisheries and to facilitate expansion of fresh water fish production. Consequently, the total number of leased fisheries increased from 3539 in 1981/82 to 3551 in 1985/86.
87. Despite the limiting factors such as high capital intensity, high cost of production and technical manpower requirement, emphasis had been placed on the expansion of marine fishery because of its potential for generating foreign exchange earnings, and high rate of returns in a relatively short period. Thus the fishing fleet of the People's Pearl and Fisheries Corporation had been extended to 79 trawlers and 48 fish carriers in 1985/86, showing an increase of 9 trawlers as compared with the base year. With a view to expanding fish and prawn production, the Second Fishery Development Project is being implemented in Sagaing, Tenasserim, Mandalay, Rangoon and Irrawaddy Divisions and Mon and Shan States. The Marine Fishery Development Project in Rakhine State, the Marine Prawn Development Project in Rakhine State and Irrawaddy Division, the Inland Fisheries Development Project in Pegu, Mandalay, Magwe, Irrawaddy Divisions and Shan State are also being implemented. In addition, the Resources Survey

and Exploratory Fishing Project and Institute of Fishery Technology Project had also been implemented in support of programmes for expansion of marine fish production without depletion of fish resources.

#### Production of Fishery Products

88. A review of the progress in fish production over the plan period shows that the total fish production rose from 357.7 million viss in 1981/82 to 426.9 million viss in 1985/86. As regards performance in annual fish production, fish production totalled 359.8 million viss in 1982/83, 373.4 million viss in 1983/84, 394.2 million viss in 1984/85 and 426.9 million viss in 1985/86. As a result, fish consumption per capita rose from 9.96 viss in 1981/82 to 11.02 viss in 1985/86.

89. Production of cultured pearls by the People's Pearl and Fisheries Corporation totalled 58690 mommies over the plan period.

#### Export of Livestock and Fishery Products

90. Sustained efforts had been made to promote export of livestock and fishery products during the plan period. The export of livestock and fishery products, rose from K 144.8 million in 1981/82 to K 245.1 million in 1985/86.

#### Public Investment in the Livestock and Fishery Sector

91. Total public investment in the livestock and fishery sector over the four year period amounted to K 782.1 million.

92. Detailed statistics relating to the livestock and fishery sector are shown in tables 56 to 68.

93. Distribution of Multiplier Livestock. The distribution of multiplier livestock from the State farms is shown in the table below.

Table 56  
Distribution of Multiplier Livestock from the State Farms (Number)

Sr. No.	Particulars	1981/82	1982/83	1983/84	1984/85 (Provi- sional actual)	1985/86 (Provi- sional)
1	2	3	4	5	6	7
1	Distribution					
1	Milch cow	207	144	200	296	147
2	Draught cattle	115	54	88	68	158
3	Sheep/goat	44		367	253	296
4	Pig	2787	2107	4832	5417	4053
5	Fowl	1105872	1452488	1739441	1566045	1366609
6	Duck	1286	8406	35063	46889	70637
2	Artificial insemination					
1	Cattle	42976	43170	51508	65813	56000
2	Pig	2418	2444	1968	3450	9000

94. Livestock Breeding. The progress of livestock breeding is shown in the table below.

Table 57  
Progress in Livestock Breeding

Sr. No.	Y e a r	(In thousand)					
		Cattle	Buffalo	Sheep/ Goat	Pig	Fowl	Duck
1	2	3	4	5	6	7	8
1	1961/62	5307	1020	514	643	7756	2416
2	1968/69	6694	1496	822	1259	13616	2353
3	1969/70	6833	1541	802	1478	14446	3248
4	1970/71	6993	1597	759	1605	15652	3464
5	1971/72	7158	1643	747	1604	15840	3596
6	1972/73	7235	1601	766	1489	16068	3536
7	1973/74	7267	1646	732	1461	15682	3186
8	1974/75	7299	1690	699	1432	15296	2836
9	1975/76	7405	1718	725	1578	16407	2916
10	1976/77	7526	1723	750	1780	16975	3176
11	1977/78	7694	1729	777	1955	16968	3422
12	1978/79	7932	1769	800	1985	17656	3383
13	1979/80	8307	1817	805	1961	20195	3720
14	1980/81	8531	1901	846	2196	22407	4170
15	1981/82	8857	1969	1019	2631	27234	4559
16	1982/83	9147	2018	1173	2884	29037	5368
17	1983/84	9338	2049	1321	2734	31001	5700
18	1984/85 (Provisional actual)	9502	2079	1435	2706	32868	5928
19	1985/86 (Provisional)	9718	2143	1527	2955	32680	6110

Note: All the data represent opening stocks.

95. Production of Livestock and Livestock Products. The production of livestock and livestock products is shown in the table below.

Table 58

Production of Livestock and Livestock Products

Sr. No.		Particulars	Unit	(In thousands)															
				1961/62	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85 (Provi- sional actual)	1985/86 (Provi- sional actual)			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
1	Cattle																		
1	Draught cattle	Nos	3235	4944	5018	5087	5180	5333	5584	5734	5950	6137	6259	6366	6516				
2	Hida and skin	"	274	310	315	319	324	335	349	360	362	374	381	388	397				
3	Fresh milk	Viss	69759	156401	158751	160946	169446	174549	193939	199858	226232	256633	307390	383000	392373				
4	Beef	"	10754	16988	17244	17482	17818	18452	19424	19924	20711	21335	21699	22034	22579				
2	Mutton	"	1956	2142	2220	2298	2370	2448	2498	2622	3118	3596	4047	4379	4678				
3	Pork	"	4950	14610	16200	18270	20298	21062	20337	22790	26632	29509	28081	27790	30871				
4	Skin (goat and sheep)	Nos	322	440	400	414	427	438	446	468	555	637	715	776	827				
5	Powl meat	Viss	7993	23013	24724	26065	28428	26860	30326	33543	40739	45207	48004	51318	51661				
6	Duck meat	"	4139	4820	4985	5429	5834	5770	6342	7098	7766	9734	10331	10736	12365				
7	Turkey and geese meat	"	132	383	432	462	503	558	599	708	761	871	884	967	1010				
8	Fowl egg	Nos	102255	438879	492218	509257	543991	563514	604849	673241	817581	868861	964536	977067	1075812				
9	Duck egg	"	79398	81660	88937	88937	94518	101979	103830	117036	137108	157236	177037	183609	190067				
10	Feather	lbs	192	206	217	217	213	221	252	279	338	372	394	422	422				
11	Silk cocoon	"	12	40	36	42	38	54	95	74	54	43	17	14	21				

Note: Trained young buffaloes and cattle are also included in the draught cattle.  
All the data represent opening stocks.

96. Animal Feed. The animal feed requirements for livestock breeding are shown in the table below.

Table 59  
Animal Feed Requirements for Livestock Breeding

(Thousand metric ton)

Sr. No.	Particulars	1981/82	1982/83	1983/84	1984/85 (Provi- sional actual)	1985/86 (Provi- sional)
1	2	3	4	5	6	7
1	Straw	12329	12802	12968	13187	13507
2	Paddy	35	39	40	43	45
3	Broken rice	464	441	464	484	499
4	Bran	265	245	254	261	269
5	Cow bran	789	849	807	799	862
6	Prawn dust	139	133	141	149	151
7	Maize	63	68	76	81	85
8	Oil cake	207	216	224	229	235
9	Gram and pesingon bran	14	16	17	19	20
10	Salt	93	99	99	101	104

97. Animal Health Services. The progress in the provision of animal health services by the Livestock Breeding and Veterinary Department for promoting livestock breeding and animal husbandry is shown in the table below.

Table 60  
Progress in Animal Health Services

(In thousand)

Sr. No.	Particulars	1981/82	1982/83	1983/84	1984/85 (Provi- sional actual)	1985/86 (Provi- sional)
1	2	3	4	5	6	7
1	Number of vaccinated animals					
1	Cattle	13399	15950	17387	19042	19579
2	Pig	512	698	848	1158	3048
3	Fowl	5699	7866	17629	12866	19602
2	Number of animals treated					
1	Cattle	432	469	569	576	1830
2	Pig	278	326	284	397	559
3	Fowl	243	451	491	701	1588

98. Distribution of Fingerlings. The progress in the number of hatcheries and the distribution of fingerlings by the Fisheries Department is shown in the table below.

Table 61  
Hatcheries and the Distribution of Fingerlings

Sr. No.	Year	Area of hatcheries (Acre)	No. of fingerlings distributed (In thousand)		
			Mrigal (Ngagyin)	Common Carp (Shwewa Ngagyin)	Total
1	2	3	4	5	6
1	1961/62	20	420		440
2	1969/70	53	1840	90	1940
3	1970/71	63	1940	100	2050
4	1971/72	73	1777	439	2264
5	1972/73	73	2150	230	2390
6	1973/74	85	2240	250	2500
7	1974/75	98	2430	300	2770
8	1975/76	107	2877	511	3440
9	1976/77	126	2269	843	3132
10	1977/78	128	2809	687	3521
11	1978/79	159	2570	616	3186
12	1979/80	213	3261	960	4221
13	1980/81	238	4883	1202	6085
14	1981/82	239	5386	1687	7073
15	1982/83	238	6426	1867	8313
16	1983/84	261	7583	1732	9315
17	1984/85 (Provisional actual)	265	9290	1565	10855
18	1985/86 (Provisional)	265	8000	2000	10000

Note: (1) Catla (Ngathaing) and Rohu (Ngamyitchin) are included in Mrigal (Ngagyin) and Grass Carp (Myetsa-Ngagyin) is included in Common Carp.  
(2) Tilapia fingerlings are included in the total number of fingerlings distributed from 1961/62 to 1977/78.

99. Fish Culture. Area of fish ponds and fish production is shown in the table below.

Table 62  
Area of Fish Ponds and Fish Production

Sr. No.	Year	Acre	Fish Production (Thousand viss)
1	2	3	4
1	1968/69	2618	1090
2	1969/70	2618	1090
3	1970/71	2631	1090
4	1971/72	2851	1178
5	1972/73	3071	1285
6	1973/74	3434	1374
7	1974/75	3457	1383
8	1975/76	3596	1438
9	1976/77	3740	1496
10	1977/78	3754	1562
11	1978/79	3855	1533
12	1979/80	4089	1639
13	1980/81	4361	1749
14	1981/82	4629	1782
15	1982/83	5038	2056
16	1983/84	5747	2362
17	1984/85 (Provisional actual)	6270	3089
18	1985/86 (Provisional)	6852	3777

100. Leasable Fisheries. The progress in the number of leasable fisheries and fish production is shown in the table below.

Table 63  
Leasable Fisheries

Sr. No.	Year	Total number of leased fisheries	Fish Production (Thousand viss)
1	2	3	4
1	1968/69	3177	34930
2	1969/70	3171	36901
3	1970/71	3336	37967
4	1971/72	3332	38340
5	1972/73	3337	38716
6	1973/74	3340	39096
7	1974/75	3360	40592
8	1975/76	3380	42331
9	1976/77	3400	44153
10	1977/78	3525	46115
11	1978/79	3526	50079
12	1979/80	3503	47623
13	1980/81	3562	45518
14	1981/82	3539	37594
15	1982/83	3508	39372
16	1983/84	3546	38554
17	1984/85 (Provisional actual)	3475	38853
18	1985/86 (Provisional)	3551	42756

101. State Fresh Water Fisheries. The production of fish from the fresh water fisheries is shown in the table below.

Table 64  
State Fresh Water Fisheries

(Thousand viss)

Sr. No.	Year	Leasable Fisheries		Fish Culture		Total Production
		Number	Production	Acre	Production	
1	2	3	4	5	6	7
1	1968/69	64	948	397	100	1048
2	1969/70	77	1135	397	154	1289
3	1970/71	77	1027	397	220	1247
4	1971/72	94	1272	397	252	1524
5	1972/73	100	1332	397	248	1580
6	1973/74	102	1302	397	187	1489
7	1974/75	105	1375	397	134	1509
8	1975/76	101	2363	477	214	2577
9	1976/77	77	1139	477	223	1362
10	1977/78	128	1603	477	270	1873
11	1978/79	158	1962	477	199	2161
12	1979/80	152	1995	477	284	2279
13	1980/81	154	2136	536	283	2419
14	1981/82	156	2252	518	271	2523
15	1982/83	173	2301	518	202	2503
16	1983/84	189	2495	791	325	2820
17	1984/85 (Provisional actual)	213	2644	791	328	2972
18	1985/86 (Provisional)	251	3436	791	502	3938

102. State Marine Fisheries. The progress in the State marine fisheries is shown in the table below.

Table 65  
State Marine Fisheries

Sr. No.	Year	Trawler (Nos.)	Fish Carrier (Nos.)	Fish Production (Thousand viss)
1	2	3	4	5
1	1968/69	65	25	1845
2	1969/70	85	2	1680
3	1970/71	99	2	1773
4	1971/72	93	2	2109
5	1972/73	98	1	2120
6	1973/74	97	2	1088
7	1974/75	87	2	2783
8	1975/76	65		4306
9	1976/77	42	17	6438
10	1977/78	43	21	10127
11	1978/79	32	29	11164
12	1979/80	43	21	13022
13	1980/81	42	40	11030
14	1981/82	70	48	14810
15	1982/83	70	51	16527
16	1983/84	72	47	13150
17	1984/85 (Provisional actual)	72	57	18142
18	1985/86 (Provisional)	79	48	20014

102. Fish Production by Nature of Catch. The total production of fish by nature of catch is shown in the table below.

Table 66

Fish Production by Nature of Catch

(Thousand viss)														
Sr. No.	Particulars	1969/70	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85 (Provi- sional actual)	1985/86 (Provi- sional actual)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Fresh water fisheries	74117	79604	82282	85080	88029	93123	92613	91275	81540	87491	88189	69901	95129
1	Fish culture	1090	1383	1438	1496	1562	1533	1639	1749	1782	2056	2362	3029	3777
2	Leasable fisheries	36901	40592	42331	44153	46115	50079	47623	45518	37594	39372	38554	38853	42756
3	Open fisheries	14183	15457	16129	16823	17538	18449	20071	20509	20012	22038	23006	23625	24329
4	Flood fisheries	21943	22162	22384	22608	22814	23062	23280	23499	22152	24025	24267	24334	24267
2	Marine fisheries	190701	217479	224855	232556	242474	252300	262570	272806	276170	272322	285212	304332	321740
1	On-shore fishing	80300	81103	81914	82733	84260	87834	91341	95133	95076	92910	99176	104053	112092
2	In-shore fishing	70000	84520	87680	90990	95147	98724	107335	136505	138673	137472	140993	167647	181682
3	Off-shore fishing	40401	51856	55261	58933	63067	65742	63894	41168	42421	41940	45043	32632	36966
	Total	264613	297083	307137	317636	330503	345423	355183	364081	357710	359813	373401	394233	426869

104. Pearl Culture. The production of cultured pearls and oyster shells is shown in the table below.

Table 67  
Pearl and Shell Production

Sr. No.	Year	Pearl (Mtonni)	Shell (Long ton)
1	2	3	4
1	1968/69	1656	40
2	1969/70	5120	40
3	1970/71	6330	80
4	1971/72	10200	80
5	1972/73	10250	74
6	1973/74	3388	25
7	1974/75	4511	32
8	1975/76	14820	42
9	1976/77	7510	23
10	1977/78	2664	39
11	1978/79	5606	36
12	1979/80	11354	34
13	1980/81	12640	38
14	1981/82	12760	42
15	1982/83	15780	47
16	1983/84	17840	74
17	1984/85 (Provisional actual)	12600	72
18	1985/86 (Provisional)	12470	50

105. Production of Livestock and Fishery Sector. The progress in the production of livestock and fishery sector is shown in the table below.

Table 68

Progress in the Production of Livestock and Fishery Sector

(Quantum index 1969/70=100)

Sr. No.	Particulars	(Index)											
		1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85 (Provisional)	1985/86 (Provisional)
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Livestock Output	107.2	112.0	116.6	121.6	129.0	138.0	152.6	165.6	170.6	182.5	203.2	212.4
1	Cattle and cattle products	133.8	135.8	137.7	141.9	146.3	156.6	161.2	173.2	185.9	203.7	229.1	234.7
2	Other livestock and livestock products	111.1	110.6	127.9	133.2	138.4	148.1	164.2	195.7	217.2	228.1	236.5	251.5
3	Net increase in livestock	34.5	37.3	39.8	46.0	65.6	70.6	105.0	77.8	26.0	31.6	64.0	68.5
2	Fishery Output	110.9	118.2	119.5	123.5	129.1	134.0	136.9	132.6	136.2	141.5	147.2	159.1
1	Fish	111.3	115.1	119.1	123.8	129.5	132.4	134.9	130.6	133.1	137.8	145.5	157.6
1	Fresh water fish	108.1	111.8	115.6	119.6	126.2	125.9	124.5	111.9	120.6	122.5	127.1	136.1
2	Marine fish	113.8	117.6	121.6	126.8	132.0	137.3	142.7	144.5	142.4	149.2	159.2	173.5
2	Other fishery products	88.1	289.0	146.5	52.1	109.3	221.4	246.5	248.9	307.8	348.1	246.1	243.3
	Total	100.0	113.2	117.2	121.8	123.0	137.3	149.5	159.2	163.9	175.3	192.3	202.1

### III. FORESTRY

#### Plan Implementation of the Forestry Sector during the Fourth Four-Year Plan

106. In implementing the annual plans of the forestry sector during the Fourth FYP the value of net output at 1969/70 constant prices for 1982/83 was K 381.5 million as against the target of K 409.3 million, achieving 93.2 per cent. In 1983/84, it was targeted at K 426.8 million, while actual achievement was K 375.9 million, achieving 88.1 per cent of the plan target. In 1984/85, it was targeted at K 445.8 million while actual achievement was K 401.2 million according to the provisional actual data, achieving 90.0 per cent. In 1985/86, it was targeted at K 450.1 million while the achievement was K 432.9 million according to the provisional data, achieving 96.2 per cent. Thus the annual average plan performance during the Fourth FYP period was 91.9 per cent. A comparison of the plan performance of the forestry sector as against the targets of the Fourth FYP approved by the Third Pyithu Hluttaw and annual plan targets is presented in the following table:-

Plan Performance of the Forestry Sector  
during the Fourth Four Year Plan

Sr. No.	Particulars	Value of Net Output (K.million)			Performance (Percentage)	
		Fourth Four-Year Plan Target	Annual Plan Target	Performance	Against Fourth Four Year Plan	Against Annual Plan
1	2	3	4	5	6	7
1	1982/83	409.3	409.3	381.5	93.2	93.2
2	1983/84	427.9	426.8	375.9	87.9	88.1
3	1984/85	453.1	445.8	401.2	88.6	90.0
4	1985/86	479.4	450.1	432.9	90.3	96.2
5	Annual average for four years	442.4	433.0	397.9	89.9	91.9

Progress in the Forestry Sector during the Fourth Four-Year Plan

107. The value of net output of the forestry sector during the Fourth FYP increased by 3.4 per cent in 1982/83, and decreased by 1.5 per cent in 1983/84. However, it increased remarkably by 6.7 per cent in 1984/85, and by 7.9 per cent in 1985/86 thereby registering an annual average growth rate of 4.1 per cent during the Fourth FYP period.

Measures Taken for Achievement of Plan Targets of the Forestry Sector

108. The main objectives of the forestry sector laid down during the Fourth FYP period were to step up the production of timber and forest products, to extend forest conservation and regeneration works systematically in order to prevent depletion of forests, to promote export of teak, hardwood and other forest products, to establish forest plantations to make the whole country green, to ameliorate climatic conditions, and to maintain ecological balance by preventing depletion of soil erosion.
109. To implement these objectives successfully, such measures as establishment of teak and hardwood plantations as well as extensive plantation of tree species for industrial use, extension of forest regeneration works, forest plantation and village forest, systematic supervision of forest extraction and conservation in accordance with the Forest Acts and regulations, expansion of forest research works, minimization of backlogs at various stages such as stock in course of extraction, neap stock, the stock at the main river depots, and up-grading of forest roads to all weather-roads, etc. were carried out systematically.
110. In order to step up production of teak, hardwood and other forest products, reserved forest areas were extended by 628 square miles during the Fourth FYP period. In respect of plantations, 5.08 million teak trees on 113 thousand acres and 8.54 million hardwood trees on 189 thousand acres were planted during the Fourth FYP period.
111. Extraction of teak and hardwood processes such as teak girdling and hardwood marking for selection felling were carried out. During the Fourth FYP period a total of 684 thousand teak trees, an annual average rate of 171 thousand teak trees, were girdled and a total of 2834 thousand hardwood trees, an annual average rate of 709 thousand hardwood trees were marked for selection felling.

112. In addition to traditional methods, advanced and modern extraction powers were also used extensively for timber extraction. In 1985/86, 705 chain saws and 5470 cross-cut saws were employed for felling, 230 tractors, 153 skidders, 4664 elephants and 4702 buffaloes for extraction and 1918 trucks were employed for haulage.

113. In the extraction of teak and hardwood, work programmes were laid down to minimize the stocks at various stages, such as stock in course of extraction, neap stock, the stock at main river depots etc. Forest roads were constructed for transportation of logs by trucks, in addition to floating of logs down the inlets and streams. In order to facilitate smooth transportation of logs from main river depots to saw mills co-ordination was made with the organizations concerned, especially with the Railways Corporation.

114. Extensive forest research works were carried out in order to improve the quality of forest products and to discover the utility of various forest products. Moreover, data collecting work including aerial photo survey were being conducted to determine Burma's forest inventory and research on means and ways of increasing extraction of timber without depletion of forests were carried out systematically.

#### Production of Forest Products

115. The changes in the production of major forest products such as teak, hardwood, firewood, charcoal, bamboo, cane, etc., during the Fourth FYP period can be studied by comparing the production in 1985/86, the final year of the plan with the base year 1981/82 are as follows:-

- hardwood production increased from 1078 thousand cubic tons to 1298 thousand cubic tons.
- firewood from 13.61 million cubic tons to 16.9 million cubic tons
- charcoal from 617 thousand cubic tons to 781 thousand cubic tons
- bamboo from 757 million numbers to 962 million numbers
- cane from 58 million numbers to 59 million numbers.

The production of teak in 1985/86 was 410 thousand cubic tons which is less than 436 thousand cubic tons in the base year. This may be explained by the fact that teak extraction had been on sustained yield basis without forest depletion and that priority had been given to haulage of the extracted logs from the extraction areas.

116. In order to step up the production of teak and hardwood, the Forest Department and Timber Corporation implemented the Forestry Project Phase II in East Pegu Yoma and the Forestry Project II in Mandalay division, Shan and Kachin States for the establishment of forest plantations, procurement of logging trucks and machinery, construction of forest roads and establishment of workshops. Timber Corporation implemented the Equipment Improvement Project for the Forestry Technique Development in Bassein forest area.

#### Export of Forest Products

117. The export of timber and forest products had been increasing during the Fourth FYP as more and more teak and hardwood were exported in logs as well as processed timber and furniture in a drive for quality and for getting higher prices. During the Fourth FYP period, export of timber and forest products increased from K 776.3 million in 1981/82, base year of the plan, to K 1053.1 million in 1985/86, the final year of the plan.

#### Public Investment of the Forestry Sector

118. Forestry sector being an important sector for export promotion, public investment has been increasing annually for the progress of teak and hardwood production and improvement of extraction techniques. During the Fourth FYP period, total public investment in the forestry sector was K 827.2 million or an annual average investment of K 206.8 million.
119. Detailed statistics of the Forestry sector during the Fourth FYP are presented in tables 69 to 79.

120. Reserved Forest Area. The progress of reserved forest area is shown in the following table.

Table 69  
Reserved Forest Area

(Square miles)

Sr. No.	Year	Reserved area at the beginning of the year	Extension of reserved forest area during the year	Reserved area at the end of the year
1	2	3	4	5
1	1961/62	34725		34725
2	1964/65	34717		34717
3	1967/68	34717		34717
4	1968/69	34717	152	34869
5	1969/70	34869	68	34937
6	1970/71	34937	222	35159
7	1971/72	35159	668	35827
8	1972/73	35827	1236	37063
9	1973/74	37063	371	37434
10	1974/75	37434	221	37655
11	1975/76	37655	220	37875
12	1976/77	37875	220	38095
13	1977/78	38095	220	38315
14	1978/79	38315		38315
15	1979/80	38315	55	38370
16	1980/81	38370		38370
17	1981/82	38370	33	38403
18	1982/83	38403		38403
19	1983/84	38403	15	38418
20	1984/85 (Provisional actual)	38418	248	38666
21	1985/86 (Provisional)	38666	365	39031

121. Teak Plantation. The progress in plantation of teak trees is shown in the following table

Table 70  
Plantation of Teak Trees

Sr. No.	Particulars	Unit	1981/82	1982/83	1983/84	1984/85 (Provi- sional actual)	1985/86 (Provi- sional)
1	2	3	4	5	6	7	8
1	Area and trees at the beginning of the year						
1	Number of trees	Nos. thousand	8236	9187	10356	11669	12981
2	Area	Acre	183019	204164	230129	259312	288467
2	Area and trees planted during the year						
1	Number of trees	Nos. thousand	951	1169	1313	1312	1285
2	Area	Acre	21145	25965	29183	29155	28550
3	Area and trees planted at the end of the year						
1	Number of trees	Nos. thousand	9187	10356	11669	12981	14266
2	Area	Acre	204164	230129	259312	288467	317017
4	Thinnings made during the year	Acre	4059	3820	4900	4599	4735
5	Teak girdling *	Nos. thousand	192	182	157	173	172

\* Teak girdling includes green teak markings,

122. Hardwood Plantation. The progress in plantation of hardwood trees is shown in the table below.

Table 71  
Plantation of Hardwood Trees

Sr. No.	Particulars	Unit	1981/82	1982/83	1983/84	1984/85 (Provi- sional actual)	1985/86 (Provi- sional)
1	2	3	4	5	6	7	8
1	Area and trees at the beginning of the year						
1	Number of trees	Nos. thousand	4931	6102	7608	9488	11747
2	Area	Acre	109587	135607	169084	210862	261054
2	Area and trees planted during the year						
1	Number of trees	Nos. thousand	1171	1506	1880	2259	2896
2	Area	Acre	26020	33477	41778	50192	64350
3	Area and trees planted at the end of the year						
1	Number of trees	Nos. thousand	6102	7608	9488	11747	14643
2	Area	Acre	135607	169084	210862	261054	325404
4	Thinnings made during the year	Acre	4962	4669	5988	5621	5787
5	Selection felling markings	Nos. thousand	755	763	639	572	860

123. Conservation of Forests. The progress of conservation of forests is shown in the following table.

Table 72  
Conservation of Forests

Sr. No.	Particulars	Unit	1981/82	1982/83	1983/84	1984/85 (Provi- sional actual)	1985/86 (Provi- sional)
1	2	3	4	5	6	7	8
1	Artificial regeneration	Acre	47165	59442	70961	79347	92900
2	Natural regeneration	"	15540	9800	10000	10100	10000
3	Improvement fellings	"	35518	27533	21847	21355	21760
4	Weedings	"	174707	295581	366047	435935	429252
5	Thinnings	"	9021	8489	10888	10220	10522
6	Climber cutting	Acre thousand	680	476	422	369	408
7	Repairs of forest road	Mile	1492	1471	1536	1588	1575
8	Repairs of reserve boundary	"	1118	1110	1055	1070	1100
9	Repairs of compartment boundary	"	2118	1704	1419	1357	1360
10	Fire protection	Acre thousand	446	549	627	683	698
11	Terrace farming	Acre	500	500	500	500	500

124. Timber Extraction. The progress in timber extraction is shown in the following table.

Table 73  
Timber Extraction

Sr. No.	Particulars	Unit	(in thousand)												
			1961/62	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84 (Provi- sional actual)	1984/85 (Provi- sional actual)	1985/86 (Provi- sional actual)
1	Teak														
1	Girdled trees stocked at the beginning of the year *	Nos.	1159	725	802	867	883	921	1090	1066	972	909	890	848	820
2	Trees girdled during the year	"	246	192	207	186	227	277	266	142	182	182	157	173	172
3	Ripe girdled trees during the year	"	632	444	383	333	316	312	354	463	405	392	453	438	415
4	Trees felled during the year	"	199	173	156	203	229	319	290	299	291	246	203	201	196
5	Arrival at mills during the year **														
1	Number of logs	"	275	339	309	325	408	492	532	520	570	518	479	508	497
2	Tonnage	Cubic ton	250	258	237	280	316	376	394	401	436	423	366	384	413
2	Hardwood														
1	Trees marked during the year	Nos.	580	586	480	678	743	746	827	945	755	763	639	572	860
2	Trees felled during the year	"	592	441	267	395	398	576	625	601	391	654	408	386	584
3	Arrival at mills during the year **														
1	Number of logs	"	741	604	447	427	457	611	915	898	754	795	568	662	821
2	Tonnage	Cubic ton	622	502	382	361	368	490	679	662	580	569	449	372	700

\* Stock girdling includes green stock marking

125. Timber Extraction Capacity. The capacity of timber felling, extraction and haulage utilized by the Timber Corporation is shown in the following table.

Table 74

Timber Felling, Extraction and Haulage Capacity

Sr. No.	Particulars	Unit	1981/82	1982/83	1983/84	1984/85 (Provi- sional actual)	1985/86 (Provi- sional)
1	2	3	4	5	6	7	8
1	Felling Capacity						
1	Chain saws	Nos.	760	699	694	700	705
1	Corporation owned	"	760	699	694	700	705
2	Cross cut saws	"	4962	5397	5332	5395	5470
1	Corporation owned	"	4962	5397	5332	5395	5470
2	Extraction Capacity						
1	Elephants	"	4591	4620	4005	4396	4664
1	Corporation owned	"	2290	2323	2196	2277	2369
2	Hired	"	2301	2297	1809	2119	2295
2	Buffaloes	"	4758	4593	4606	4622	4702
1	Hired	"	4758	4593	4606	4622	4702
3	Tractors	"	199	213	211	213	230
1	Corporation owned	"	199	213	211	213	230
4	Skidders	"	155	147	142	153	153
1	Corporation owned	"	155	147	142	153	153
5	Trucks	"	1876	1854	1834	1867	1918
1	Corporation owned	"	1394	1562	1562	1587	1638
	- Heavy	"	352	430	420	429	473
	- Light	"	1042	1132	1142	1158	1165
2	Hired	"	482	292	272	280	280

126. Teak Stock at Various Stages of Production. Teak stock position of the Timber Corporation at various stages of production is shown in the following table.

Table 75

Teak Stock at Various Stages of Production

Sr. No.	Particulars	Unit	1981/82	1982/83	1983/84	1984/85 (Provi- sional actual)	1985/86 (Provi- sional)
1	2	3	4	5	6	7	8
1	Opening stock of I.C.E. (In course of extraction)	Nos.	364249	300647	242374	211507	194930
		Cubic ton	279109	235383	18691.2	161797	158194
2	Opening neap stock	Nos.	541566	532040	542584	441007	413071
		Cubic ton	455422	440755	442207	35492.8	341560
3	Opening stock at main river depots	Nos.	282908	359268	394220	347344	268586
		Cubic ton	200749	252452	282069	244096	189904
4	Opening stock at mills*	Cubic ton	203394	193794	251632	135210	93307

\* Mills include river depots.

127. Production of Timber. The production of teak and hardwood by ownership is shown in the table below.

Table 76  
Production of Teak and Hardwood by Ownership

(Cubic ton)

Sr. No.	Year	State		Private*		Total	
		Teak	Hard-wood	Teak	Hard-wood	Teak	Hard-wood
1	2	3	4	5	6	7	8
1	1939/40			446730	478217	446730	478217
2	1947/48			259546	389108	259546	389108
3	1961/62	250185		12176	916008	262361	916008
4	1964/65	285600	594499		243000	285600	837499
5	1967/68	295964	614513		282000	295964	896513
6	1968/69	301249	613724		296000	301249	909724
7	1969/70	300519	612243		300000	300519	912243
8	1970/71	362099	622023		306000	362099	928023
9	1971/72	291247	716416		322000	291247	1038416
10	1972/73	307436	670074		337000	307436	1007074
11	1973/74	201312	447492		347000	201312	794492
12	1974/75	257806	501869		364000	257806	865869
13	1975/76	236834	381967		402000	236834	783967
14	1976/77	280177	360617		418484	280177	779101
15	1977/78	316209	368060		444450	316209	812510
16	1978/79	375584	480099		599640	375584	1079739
17	1979/80	394242	679310		452779	394242	1132089
18	1980/81	401332	682333		459654	401332	1141987
19	1981/82	435592	579858		498260	435592	1078118
20	1982/83	422784	569249		547803	422784	1117052
21	1983/84	366476	449163		534045	366476	983208
22	1984/85 (Provisional actual)	384416	572137		564450	384416	1136587
23	1985/86 (Provisional)	410000	700000		597820	410000	1297820

\* Includes personal use.

128. Production and Distribution of Timber. The production and distribution of logs and sawn timber by the Timber Corporation are shown in the following table.

Table 77

Production and Distribution of Timber

(Cubic ton)

Sr. No.	Particulars	1981/82	1982/83	1983/84	1984/85 (Provi- sional actual)	1985/86 (Provi- sional)
1	2	3	4	5	6	7
1	Teak (logs)					
1	Production	375872	442278	329306	379716	413000
1	Arrival at mills during the year*	435592	422784	366476	384416	410000
2	Corrected net stock**	(-)59720	(+)19494	(-)37170	(-) 4700	(+) 3000
2	Distribution during the year	385472	384440	445728	421619	409000
1	Saw mills	297565	312643	327948	296069	286000
2	Local sales	16168	10977	5493	5266	13000
3	Export	71739	60820	112287	120284	110000
3	Stock adjustment	(-) 9600	(+)157838	(-)116422	(-)41903	(+) 4000
2	Hardwood (Logs)					
1	Production	525879	561635	448574	573237	700016
1	Arrival at mills during the year*	579858	569249	449163	572137	700000
2	Corrected net stock**	(-)53979	(-) 7614	(-) 589	(+) 1100	(+) 16
2	Distribution during the year	602821	506956	512172	486765	647510
1	Saw mills	496506	401591	449752	433941	517510
2	Local sales	50016	52447	29100	29312	60000
3	Export	56299	52918	33320	23512	70000
3	Stock adjustment	(-)76942	(+)154679	(-)63598	(+)86472	(+)52506

\* Saw mills include terminal depots.

\*\* Includes logs gain or loss on remeasurement, inter and intra-regional transfer, logs under investigation, and loss and wastages.

Table 77 (Concl'd.)  
Production and Distribution of Timber

		(Cubic ton)				
Sr.	Particulars	1981/82	1982/83	1983/84	1984/85 (Provi- sional actual)	1985/86 (Provi- sional)
No.						
1	2	3	4	5	6	7
3	Teak (Sawn timber)					
1	Production	113600	163515	134557	121921	115900
1	Sawn timber during the year	125104	129794	134923	122118	114400
2	Corrected net stock**	(-)11504	(+)33721	(-) 366	(-) 197	(+) 1500
2	Distribution during the year	139071	147165	143425	121734	135700
1	Local sales	66432	89743	73431	61132	55700
2	Export	72639	57422	69994	60602	80000
3	Stock adjustment	(-)25471	(+)16350	(-) 8868	(+) 187	(-)19800
4	Hardwood (Sawn timber)					
1	Production	257062	283637	232988	226833	288330
1	Sawn timber during the year	261744	264942	233068	229805	284630
2	Corrected net stock**	(-) 4682	(+)18695	(-) 80	(-) 2972	(+) 3700
2	Distribution during the year	265430	266418	240600	220569	324420
1	Local sales	265430	266357	240140	220216	319420
2	Export		61	460	353	5000
3	Stock adjustment	(-) 8368	(+)17219	(-) 7612	(+) 6264	(-)36090

\*\* Includes logs gain or loss on remeasurement, inter and intra-regional transfer, logs under investigation, and loss and wastages.

119. Other Forest Products. The production of forest products other than teak and hardwood is shown in the following table.

Table 78

Production of Other Forest Products

Sr. No.	Particulars	Unit	(In thousand)												
			1961/62	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85 (Provisional actual)	1985/86 (Provisional actual)
1	Teak and hardwood post	Nos	44	13	20	49	26	34	31	54	35	36	29	39	35
2	Teak and hardwood pole	"	52	921	1283	700	481	640	1107	1024	1009	1215	1433	1070	1337
3	Firewood	Cubic ton	7877	10490	10873	11337	11678	12452	12545	13049	13608	14382	15045	15854	16900
4	Charcoal	"	184	235	283	381	378	640	529	508	617	765	719	791	781
5	Bamboo	Nos thousand	349	652	619	628	644	666	687	697	757	782	860	914	962
6	Cane	"	36	41	46	36	53	39	35	37	50	51	57	58	59
7	Cutch	Viss	268	47	99	351	238	202	99	199	272	400	344	272	337
8	Bark	"	796	490	380	471	275	359	228	322	330	436	318	512	287
9	Shaw	"	192	218	201	196	197	212	207	212	244	255	266	219	254
10	Kalamet	"	24	56	57	88	73	53	95	150	127	40	21	56	30
11	Indee-pwenyet	"	228	454	746	777	550	553	551	286	401	646	533	475	447
12	Thakha	"	237	107	120	111	180	104	177	149	135	174	93	128	120
13	Cardamon	"	20	22	36	16	4	2	1	3	9	7	5	14	5
14	Kanyin resin	"	13	7	4	6	8	2	3	6	20	23	4	5	*
15	Pine resin	"	208	90	84	30	32	145	227	267	192	175	231	105	194
16	Roofing material	Nos thousand	384	518	542	581	608	617	652	688	748	825	837	861	919
17	Te	Viss	2	42	163	30	31	79	39	50	63	21	20	19	20
18	Honey	"	5	16	32	25	36	18	38	29	19	36	47	26	36
19	Bee-wax	"	3	3	3	2	3	7	3	4	3	4	10	3	4
20	Bat guano	"	12	116	263	218	197	156	255	221	155	194	254	215	275
21	Orchids (Plants)	Nos	16	16	49	5	6	9	15	7	4	9	11	10	10
22	Thitsee	Viss	80	52	55	42	42	50	57	31	15	52	41	39	32
23	Bowayaza	"	21	5	5	42	70	1	1	1	*	3			
24	Birds nest	"	1	1	*	*	1	*	1	1	1	1	1	1	1
25	Lac	"	9	9	5	25	37	9	38	25	17	25	59	146	14
26	Branch wood	Cubic ton				24	55	59	48	28	31	16	28	16	13

\* Less than one thousand viss.

130. Production of Forestry Sector. The progress in the production of Forestry sector is shown in the table below

Table 79

Progress in the Production of Forestry Sector

(Quantum Index 1969/70-100)

(Index)

Sr. No.	Year	Teak	Hardwood	Other forest products	Total
1	2	3	4	5	6
1	1961/62	83.1	110.4	79.5	85.8
2	1964/65	94.7	95.9	94.0	94.5
3	1969/70	100.0	100.0	100.0	100.0
4	1970/71	120.3	101.7	105.8	108.0
5	1971/72	96.7	116.3	106.5	106.3
6	1972/73	102.1	109.7	102.5	103.7
7	1973/74	66.9	76.3	103.2	91.1
8	1974/75	85.7	85.7	117.3	105.3
9	1975/76	78.7	71.8	117.8	101.7
10	1976/77	93.1	69.3	122.4	107.1
11	1977/78	105.1	72.7	125.7	112.1
12	1978/79	124.8	111.1	134.4	128.3
13	1979/80	131.0	117.0	134.8	130.8
14	1980/81	133.3	116.3	138.1	133.2
15	1981/82	144.7	104.4	149.8	140.6
16	1982/83	140.5	107.2	159.3	146.2
17	1983/84	121.8	83.5	168.6	143.9
18	1984/85 (Provisional actual]	127.7	103.2	176.4	153.5
19	1985/86 (Provisional]	136.2	123.8	187.5	165.8

#### IV. MINING

##### Plan Implementation of the Mining Sector during the Fourth Four-Year Plan

131. A review of plan performance of the mining sector over the Fourth FYP period shows that the value of net output at 1969/70 constant prices amounted K 213.7 million in 1982/83 as compared with the annual plan target of K 278.1 million, achieving 76.8 per cent.

In 1983/84, the value of net output was K 220.6 million as against the target of K 275.4 million, realising 80.1 per cent. In 1984/85, the value of net output according to the provisional actual was K 261.8 million as against the target of K 326.7 million realising 80.1 per cent. In 1985/86, according to the provisional data, the value of net output was K 319.1 million as against the target of K 343.7 million realising 92.8 per cent. Therefore, the average annual plan performance of the mining sector was 82.9 per cent during the Fourth FYP. A comparison of the plan performance of the mining sector as against the targets of the Fourth FYP approved by the Third Pyithu Hluttaw and annual plan targets is presented in the following table:-

Plan Performance of the Mining Sector  
during the Fourth Four-Year Plan

Sr. No.	Particulars	Value of Net Output (K.million)			Plan Performance (Percentage)	
		Fourth Four-Year Plan Target	Annual Plan Target	Performance	Against Fourth Four-Year Plan	Against Annual Plan
1	2	3	4	5	6	7
1	1982/83	278.1	278.1	213.7	76.8	76.8
2	1983/84	345.9	275.4	220.6	63.8	80.1
3	1984/85	392.6	326.7	261.8	66.7	80.1
4	1985/86	416.8	343.7	319.1	76.6	92.8
5	Annual average for four years	358.4	306.0	253.8	70.8	82.9

Progress of the Mining Sector during the Fourth Four-Year Plan

132. During the Fourth FYP the growth rate of the value of net output of the mining sector was 8.1 per cent in 1982/83, 3.2 per cent in 1983/84, 18.7 per cent in 1984/85 and 21.9 per cent in 1985/86. The annual average growth rate of the mining sector during the Fourth FYP was 12.7 per cent, thus achieving a high growth rate.

Measures Taken for the Achievement of Plan Targets of the Mining Sector

133. The main objectives set for the mining sector during the Fourth FYP are: to exploit all kinds of natural resources as much as possible, to extend oil and mineral surveys, exploration and prospecting works, to initiate preparatory works for the supply of primary raw materials required for the establishment of heavy industries, to increase the production of minerals which have external market potential, to boost the production of crude oil to fulfil the required crude oil for oil refineries, to increase exploration works and production of industrial raw minerals and to minimize losses and wastages in the production of minerals by effective control and management. To achieve these objectives, geological survey, mineral exploration and prospecting works were being carried out extensively; emphasis was given to the exploration and extraction of crude oil; and the production of various minerals had been expanded depending on the financial resources of the State. In addition, with a view to enhancing the productivity of the mine workers, various incentives and amenities were given. Effective control and management were being carried out systematically in order to minimize losses and wastages in the production of minerals.
134. As regards exploration and prospecting activities in the mining sector off-shore tin exploration works, the Hermyingyi Mine Ore reserve estimation and rehabilitation works and the Metallurgical Research and Development Centre (Ela) were carried out with a view to achieving the plan targets of the mining sector during the Fourth FYP. Regarding mineral extraction, the No. 1 Copper Project, the expansion of lead sulphide ore concentration plant at

Bawdwin Mine, the Tin and Tungsten Expansion Project, the Tavoy concentration and up-grading plant, Syriam Tin Smelting and Refining Project, No.1 Iron and Steel Plant and the Steel Grinding Ball Mill have been implemented. For the extraction of valuable mineral preliminary survey, mineral exploration and prospecting works, preparatory works for test run extraction were also carried out for special mineral 2. As a result the production of refined tin metal, mineral processing technology and technical experiences were also gained.

135. With regard to exploration and extraction of oil and natural gas, oil exploration activities were undertaken by geological field parties, seismic parties, gravity parties and off-shore oil exploration activities were also carried out by the marine seismic parties. As a result new oil fields and new gas wells were explored, and increase in the production of natural gas was achieved. The number of oil wells increased from 739 in 1981/82 to 1214 in 1985/86 and the number of gas wells from 33 in 1981/82, to 92 in 1985/86.

#### Production of the Mining Sector

136. The production of crude oil, natural gas, various minerals and non-metallic minerals of the mining sector in 1985/86 as compared with that of 1981/82 was as follows:-
- crude oil from 10.45 million U.S barrels to 11.30 million U.S barrels
  - natural gas from 14878 million cubic feet to 32596 million cubic feet
  - tin, tungsten and scheelite mixed concentrates from 1676 metric tons to 2103 metric tons
  - tin concentrates (74%) from 431 metric tons to 1702 metric tons
  - tungsten concentrates (67%) from 182 metric tons to 914 metric tons
  - lead sulphide ore from 283756 metric tons to 322580 metric tons
  - refined gold from 60 fine ounce to 95 fine ounce.
137. The production of refined tin metal (99.9%) which was initially produced in 1982/83 with 459 metric tons increased to 508 metric tons in 1985/86.

138. The production of new items such as iron, steel and steel billets were also increased. The production of steel billets which started in 1983/84 with 1304 metric tons increased to 26000 metric tons in 1985/86. The production of copper concentrates which started in 1984/85 with 17000 metric tons increased to 49000 metric tons in 1985/86.

139. The production of non-metallic minerals in 1985/86 as compared with the base year 1981/82 was as follows:

- barytes increased from 6823 tons to 8000 tons
- gypsum from 13609 tons to 37984 tons
- fire clay from 217 tons to 1000 tons
- coal from 18038 tons to 42500 tons
- limestone from 1104 thousand tons to 1517 thousand tons.

#### Export of the Mining Sector

140. Endeavours had been made to expand the export of minerals such as tin concentrates, tungsten concentrates, tin tungsten scheelite mixed concentrates, refined silver, refined lead, zinc concentrates, copper matte, nickel speiss and a new export item namely copper concentrates annually. During the Fourth FYP, the export of minerals and gems increased from K 325.1 million in 1981/82 to K 393.3 million in 1985/86.

#### Public Investment of the Mining Sector

141. In order to boost production of the mining sector, public investment was increased annually. The total public investment in the mining sector over the four-year period amounted to K 2469.4 million.

142. Detailed statistics relating to the mining sector during the Fourth FYP are presented in tables 80 and 81.

143. Production of Crude Oil, Natural Gas and Selected Minerals. The production of crude oil, natural gas and selected minerals is presented in the table below.

Table 80  
Production of Crude Oil, Natural Gas and Selected Minerals

Sr. No.	Particulars	A/U	1961/62	1969/70	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84 (Provisional)	1984/85 (Provisional)	1985/86 (Provisional)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Crude oil and natural gas															
1	Crude oil	Thousand US barrels	4366	5854	6773	7094	8586	9556	9999	11020	10110	10447	9789	10168	11200	11302
2	Natural gas	Million cu.ft		1758	5566	7655	8481	8784	9892	12030	14837	14878	17400	18190	24417	32596
2	Minerals															
1	Tin concentrates (65%) <sup>1/</sup>	Metric ton	914	416	566	608	366	261	738	1155	1016	1279	1376	931	1032	1232
2	Tungsten concentrates (65%) <sup>2/</sup>	"	1463	200	584	513	337	428	713	812	902	773	269	481	417	455
3	Tin and tungsten mixed concentrates (65%) <sup>3/</sup>	"														
4	Tin, tungsten and scheelite mixed concentrates <sup>2/</sup>	"		169	393	408	382	561	922	1338	1619	1676	1927	2301	2734	2103
5	Tin concentrates (74%)	"										431	657	799	430	1702
6	Tungsten concentrates (67%)	"										182	601	669	339	914
7	Refined tin metal (99.9%)	"											459	269	388	508
8	Lead sulphide ore <sup>4/</sup>	"	155448	162510	182747	130719	92197	99654	129358	158559	192109	283756	267404	308569	274188	322560
9	Refined gold	Fine oz.								262	78	60	86	81	66	95

1/ Tin concentrates (65%) is the primary product and from that up-graded tin concentrates (74%) and Refined tin metal are subsequently produced.

2/ Tungsten concentrates (65%) is the primary product and from that up-graded tungsten concentrates (67%) are subsequently produced.

3/ Tin and tungsten mixed concentrates and tin, tungsten and scheelite mixed concentrates are the primary products and from these up-graded tin concentrates (74%) and up-graded tungsten concentrates (67%) are subsequently produced.

Formerly Tin and tungsten mixed concentrates was not shown separately. After the concentrates had been separated by the separator are shown as tin concentrates (65%) and tungsten concentrates (65%) respectively.

4/ Lead sulphide ore is the primary product and from that mineral product shown in items (2-9) to (2-15) are subsequently produced.

Table 80 (Contd.):  
Production of Crude Oil, Natural Gas and Selected Minerals

Sr. No.	Particulars	A/U	1961/62	1969/70	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85 (Provisional actual)	1985/86 (Provisional)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
10	Refined silver	Thousand fine oz.	1437	638	413	173	187	400	422	402	428	576	576	576	491	576
11	Refined lead	Metric ton	16881	6815	5000	2483	2755	5326	5547	5957	6592	8333	8129	7625	7589	7620
12	Zinc concentrates	"	14453	7090	5756	4496	3822	4237	5339	6370	7104	9159	7772	7899	9147	9144
13	Copper matte	"	360	220	79	41	87	167	121	131	240	311	180	256	298	173
14	Nickel speiss	"	528	202	78	30	59	48	49	65	130	208	80	82	55	80
15	Antimonial lead	"	382		176	104	118	172	203	242	279	314	277	313	305	254
16	Antimony	"		181	589	807	524	340		367	149	25				
17	Pig iron	"										3067	9045	7764		
18	Steel billets	"												1304	17057	26000
19	Copper ore	Thousand metric ton													877	2088
20	Copper concentrates	"													17	49
3	Non metallic minerals															
1	Jade	Kilo	50620	2283	7201	3948	31386	6639	9063	51333	46366	56670	130695	45700	90990	13079
2	Barytes	Ton		11643	26401	25314	15413	23429	41535	25642	4743	6823	15776	9831	8967	8000
3	Gypsum	"		2562	6681	13042	16533	22253	21899	21199	16883	13609	17829	21167	27144	37584
4	Manganese dioxide	"		45				30	30	98	16			2	7	50
5	Graphite	"		36			158	202	148	135	43	114	240	268	171	230
6	Graphite concentrates	"			2		55	65	60	50						
7	Industrial/white clay	"		529	1512	4591	3774	2257		500	400	850	1200	800	350	600
8	Ball clay	"		7517	2023	4809	5687	5569	4123	4324	3710	435	1002	619	945	108
9	Fire clay	"		1466	2457	1593	2303	3325	1786	2194	75	217	1543	1115	1892	1000
10	Fire clay powder	"		121		58	159	337	183	283	227	300	250	176	250	350

Table 80 (Concl'd.)  
Production of Crude Oil, Natural Gas and Selected Minerals

St. No.	Particulars	A/U	1961/62	1969/70	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85 (Provisional actual)	1985/86 (Provisional actual)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
11	Calcium carbonate	Ton			947	1494	2244	505	120	888	805	1313	1765	2426	1705	800
12	Feldspar	"		799	195	797	1682	2058	1415	2960	1994	2531	6606	7260	7045	2407
13	Soap stone/talc	"		252	342	414	234	198	224	188	216	144	163	126	90	126
14	Bentonite	"		1011	504	201	525	1328	876	2153	2148	2064	969	798	714	700
15	Dolomite	"		774	414	873	1386	360	1968	2957	5166	1746	2610	4787	1264	2345
16	Coal	"		11047	12947	15308	19166	29346	11992	13600	11036	18018	28660	35402	43533	42500
17	Limestone	Thousand ton	423	591	516	595	633	1027	1004	1188	1108	1104	1119	1145	1147	1517
18	Stone quarrying	Thousand cubic m	210	527	484	483	442	466	476	485	561	556	538	539	528	527
19	River shingle	"	27	143	125	114	125	144	135	141	159	180	182	186	170	190

144. Mineral Production by Type. The progress in the production of mining sector by type of minerals is presented in the table below.

Table 81  
Production of Minerals by Type  
(Quantum Index 1969/70=100)

(Index)

Sr. No.	Particulars	1961/62	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85 (Provisional actual)	1985/86 (Provisional actual)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Crude oil and natural gas	73.1	119.2	126.6	152.5	169.1	177.6	196.9	184.4	190.0	181.5	188.6	212.1	221.9
2	Lead, zinc, silver and allied products	229.3	69.7	36.3	40.5	68.8	73.6	77.6	86.3	111.6	104.5	102.4	100.4	104.0
3	Tin, tungsten and scheelite mixed concentrates	247.4	148.8	149.8	101.0	110.0	227.5	303.5	342.3	341.2	390.4	419.0	426.0	487.1
4	Jade and gem	302.9	234.7	484.1	73.7	95.0	183.1	430.5	386.2	437.9	452.5	430.2	489.3	556.6
5	Industrial minerals	56.8	102.2	123.7	133.1	183.8	172.0	209.3	179.9	180.7	199.2	207.7	205.8	256.7
6	Others*	38.4	97.6	96.3	93.8	100.0	98.7	109.6	121.7	139.4	168.3	172.2	295.3	502.2
	Total	98.3	109.1	111.6	120.9	139.6	150.0	171.5	167.7	178.0	182.3	188.5	225.4	279.1

\* Includes production of pig iron for 1981/82 to 1983/84, steel billets from 1983/84 and copper from 1984/85.

#### V. PROCESSING AND MANUFACTURING

##### Plan Implementation of the Processing and Manufacturing Sector during the Fourth Four-Year Plan.

145. The annual plans of the processing and manufacturing sector had been implemented during the Fourth FYP, and the value of net output at 1969/70 constant prices in 1982/83 was K 1794.6 million representing 93.8 per cent of the targeted value of K 1913.3 million. In 1983/84 the value of net output amounted to K 1854.0 million representing 91.1 per cent of the targeted value of K 2035.5 million. In 1984/85 the value of net output was K 1988.8 million representing 90.7 per cent of the targeted value of K 2192.1 million. In 1985/86 the final year of the Fourth FYP the value of net output according to the provisional data was K 2159.7 million against the targeted value of K 2338.7 million realising 92.3 per cent. Thus the average annual performance during the Fourth FYP was 92.0 per cent. A comparison of the plan performance of the processing and manufacturing sector as against the targets of the Fourth FYP approved by the Third Pyithu Hluttaw and annual plan targets is presented in the following table:-

Plan Performance of the Processing and Manufacturing Sector  
during the Fourth Four-Year Plan

Sr. No.	Particulars	Value of Net Output (K. million)			Performance (Percentage)	
		Fourth Four-Year Plan Targets	Annual Plan Target	Performance	Against the Fourth Four-Year Plan	Against Annual Plan
1	2	3	4	5	6	7
1	1982/83	1913.3	1913.3	1794.6	93.8	93.8
2	1983/84	2074.6	2035.5	1854.0	89.4	91.1
3	1984/85	2271.7	2192.1	1988.8	87.5	90.7
4	1985/86	2465.7	2338.7	2159.7	87.6	92.3
5	Annual average for four years	2181.3	2119.9	1949.3	89.4	92.0

Progress of the Processing and Manufacturing Sector during the Fourth Four-Year Plan

146. During the Fourth FYP, the net output of the processing and manufacturing sector rose by 5.3 per cent in 1982/83, 3.3 per cent in 1983/84, 7.3 per cent in 1984/85 and 8.6 per cent in 1985/86 realizing an average annual growth rate of 6.1 per cent.

Measures Taken for Achievement of Plan Targets of the Processing and Manufacturing Sector

147. The main objectives of the processing and manufacturing sector during the Fourth FYP were, to give priority to the establishment of industries which are most essential for national economy, export-oriented industries, and those realizing relatively high rate of returns within the short gestation period, to fully utilize industrial capacity as the main strategy, to create new productive capacity based on the availability of indigenous materials, to produce and fulfill fuel and other essential inputs in accordance with requirements, to expand the export of manufactured goods, to strive for the development of heavy industries and to establish industries in line with regional development.
148. To achieve the above objectives successfully, the measures undertaken were to provide adequate supply of domestic as well as imported raw materials and spare parts, to speed up the completion of the carry-on projects and to increase the capacity utilization of existing industries, to give priority to those industries with high efficiency of investment, to encourage co-operative and private enterprises in order to accelerate production, to expand the production of basic commodities and distributing efficiently to consumers, to minimise losses, wastages, and stock in hand of the enterprises, to provide technical training and to give incentives to workers in order to promote technology and labour productivity.
149. To step up industrial production, adequate supply of domestic as well as imported raw materials and spare parts is being provided. Within the allocated amount of foreign exchange, imported industrial raw materials and spare parts had been provided according to

priorities. Advance payment for industrial crops to farmers, and expansion of cultivated land owned by the factories had also been carried out. Development centres have been established to promote technology in order to substitute the imported raw materials with the domestic raw materials.

150. During the Fourth FYP renovation and replacement of the existing mills were carried out to increase capacity utilization. Efforts had been made to expedite the implementation of on-going industrial projects with a view to completing the projects as scheduled and commencing production. During the Fourth FYP period capacity utilization declined for those industries, based on imported raw materials, whereas the level of capacity utilization was maintained for those industries based on domestic raw materials.
151. To increase the industrial output, efforts had been made to step up the production of public sector as well as co-operative and private sectors. In accordance with the Rights of Private Enterprise Law, private enterprises were registered. Domestic and imported raw materials and spare parts were being distributed to co-operatives and registered private enterprises.
152. The quality of industrial products improved and for smooth and efficient distribution of the finished goods to consumers by industrial corporations, sale centres were opened and sales contracts were signed with co-operatives.
153. Of the projects which were implemented during the Fourth FYP period, the major factories completed were Pynmana Sugar Mills, Belin Sugar Mill extension, Beer Extension Plant, Hmawbi Noodle Factory, Daik-U Monosodium Glutamate Factory, Daik-U Canning Factory, Shwe-nyaung Sugar Mill, Jute Carpet Factory, No.3 Garment Factory, Kyan-gin Cement Mill Extension, Asbestos Plant, Sale Fertilizer Plant Extension, No.3 Fertilizer Plant, Liquefied Petroleum Gas Plant (first phase), Methanol Plant, Thaton Tyre and Rubber Products Manufacturing Plant, Diesel Injection Pumps and Nozzles Manufacturing Plant, No.4 Plywood Factory, seven numbers of 100-ton Rice Mill and two numbers of 150-ton Rice Mill.

154. During the Fourth FYP period, the number of factories and establishments increased from 38756 in 1981/82 to 41724 numbers in 1985/86. Of these factories and establishments, 41053 were under the group employing below 50 workers, and 668 were under group employing more than 50 workers.
155. There was an increase in labour force from 1.10 million in the base year 1981/82 to 1.28 million in 1985/86, the final year of the Fourth FYP.

Production of Processing and Manufacturing Sector

156. In line with the increase in industrial production during the Fourth FYP, the gross output of the processing and manufacturing sector amounted to K 9782.1 million in 1985/86, registering an average annual growth rate of 5.6 per cent when compared to the gross output of K 7870.7 million in the base year 1981/82. Comparing the gross output by type of ownership in 1985/86 with that of the base year 1981/82 the share of the State sector increased from K 3557.6 million in 1981/82 to K 3864.1 million in 1985/86, registering an average annual growth rate of 2.1 per cent, the co-operative sector from K 298.6 million to K 379.4 million, registering an average annual growth rate of 6.2 per cent and the private sector from K 4014.5 million to K 5538.6 million, registering an average annual growth rate of 8.4 per cent.
157. Comparing the gross output of the processing and manufacturing sector by commodity group during the Fourth FYP with the base year, the average annual growth rates registered are as follows:-
- 7.4 per cent in food and beverages.
  - 3.4 per cent in construction materials.
  - 7.9 per cent in household goods.
  - 5.0 per cent in printing and publishing.
  - 8.2 per cent in industrial raw materials.
  - 0.5 per cent in mineral and petroleum products
  - 71.5 per cent in machinery and equipment.
  - 9.0 per cent in transport vehicles.
  - 19.9 per cent in electrical goods.
  - 2.4 per cent in miscellaneous goods.

158. The production of selected commodities in 1985/86 compared with that of 1981/82 is as follows:-

- production of sugar increased from 42900 tons to 64610 tons
- salt from 252 thousand tons to 315 thousand tons
- cigarettes from 1967 million numbers to 3100 million numbers
- poplin from 5.4 million yards to 5.85 million yards
- gents' longyi, ladies' longyi and children's longyi from 11.26 million numbers to 12.96 million numbers
- vest from 3.9 million numbers to 4.1 million numbers
- mosquito netting from 2.91 million yards to 4.05 million yards
- matches from 98 thousand cases (1200 per case) to 132 thousand cases
- paper from 18419 metric tons to 21600 metric tons
- bricks and tiles from 129.5 million numbers to 142.2 million numbers
- cement from 307 thousand metric tons to 477 thousand metric tons
- motor spirit from 71.3 million gallons to 76.7 million gallons
- diesel oil from 93.1 million gallons to 110.9 million gallons
- fluorescent lamp from 340 thousand numbers to 440 thousand numbers
- dry cell battery from 18.7 million numbers to 20.7 million numbers
- television from 1394 numbers to 2900 numbers
- motor-car from 1802 numbers to 2504 numbers
- bicycles from 13080 numbers to 14000 numbers
- fertilizer from 125 thousand metric tons to 354 thousand metric tons.

#### Export of Manufactured Goods by Processing and Manufacturing Sector

159. As endeavours were being made to expand the export of manufactured goods of the processing and manufacturing sector during the Fourth FYP, the export value of manufactured goods during the four-year period was K 563.0 million or an average annual of K 140.8 million. Though the share of export value of the processing and manufacturing sector in the total export value was low it was a supportive sector

by processing the exportable commodities of other sectors such as agriculture, livestock and fishery, forestry and mining. During the Fourth FYP, stuffer yarn, carpet backing shirts and leather fibre boards were introduced as new export items.

Public Investment of Processing and Manufacturing Sector

160. In order to increase industrial output, new projects had been implemented within the availability of financial resources during the Fourth FYP. The four-year total of public investment for the processing and manufacturing sector during the Fourth FYP was K 10306.2 million or an average annual amount of K 2576.5 million.
161. Detailed statistics of the processing and manufacturing sector during the Fourth FYP are shown in tables 82 to 89.

162. State-owned Factories and Establishments. The position of State-owned factories and establishments is shown in the table below.

Table 82  
State-owned Factories and Establishments

Sr. No.	Particulars	(Number)	
		1981/82	1985/86 (Provisional)
1	2	3	4
1	Food and beverages	210	239
2	Clothing and wearing apparel	63	65
3	Construction materials	124	134
4	Personal goods	17	18
5	Household goods	11	14
6	Printing and publishing	28	28
7	Industrial raw materials	939	910*
8	Mineral and petroleum products	24	24
9	Agricultural equipment	2	3
10	Machinery and equipment	7	7
11	Transport vehicles	4	5
12	Workshops and dockyards	305	305
13	Miscellaneous	6	11
	Total	1740	1763

\* Thirty-five small virginia tobacco curing barns are combined with larger barns.

163. Co-operative and Private Factories and Establishments. The position of co-operative and private factories and establishments is shown in the table below.

Table 83  
Co-operative and Private Factories and Establishments

Sr. No.	Particulars	1985/86 (Provisional)		
		Co-operative	Private	Total
1	2	3	4	5
1	Food and beverages	365	14183	14548
2	Clothing and wearing apparel	150	8890	9040
3	Construction materials	110	1512	1622
4	Personal goods	15	4603	4618
5	Household goods	17	1003	1020
6	Printing and publishing	6	63	69
7	Industrial raw materials	7	1206	1213
8	Mineral and petroleum products	12	3073	3085
9	Agricultural equipment		7	7
10	Machinery and equipment		5	5
11	Transport vehicles	7	324	331
12	Miscellaneous	30	4370	4400
	Total	719	39239	39958

164. Factories and Establishments by Number of Workers. Factories and establishments by number of workers are shown in the table below.

Table 84  
Factories and Establishments by Number of Workers  
(1985/86)

					(Number)
Sr. No.	Particulars	State	Co-oper- ative	Private	Total
1	2	3	4	5	6
1	Below 10 workers	926	401	34596	35923
2	10 - 50 workers	246	286	4598	5130
3	51 - 100 workers	145	32	39	216
4	Over 100 workers	446		6	452
	Total	1763	719	39239	41721

165. Production of Processing and Manufacturing Sector by Commodity Group. Production of Processing and Manufacturing Sector by Commodity Group is shown in the table below.

Table 85  
Production of Processing and Manufacturing Sector by Commodity Group  
(At current prices)

Sr. No.	Commodity Group	(Kvse in lakh)												
		1961/62	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85 (Provisional actual)	1985/86 (Provisional actual)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Food and beverages	21537	60693	82718	98149	116023	122789	126118	135130	145677	155920	161855	203670	223964
2	Clothing and wearing apparel	5295	5469	9234	13475	16452	14797	16182	17931	18304	21593	20867	20457	20556
3	Construction materials	2763	3645	3829	4886	5536	5923	8155	9297	9238	9766	9845	9890	10861
4	Personal goods	1290	2407	3786	5186	4740	4355	4064	5634	6741	6497	5190	5496	5441
5	Household goods	72	299	408	570	664	705	747	1167	1352	1770	1197	1402	1522
6	Printing and Publishing	257	768	1245	1324	1624	1726	1811	1839	1971	2312	2498	2810	2414
7	Industrial raw materials	1220	3610	4504	6483	8977	9452	10027	12496	14055	15085	16358	18725	20930
8	Mineral and petroleum products	2101	7537	7651	9976	10583	9771	10108	10657	11137	13460	11879	12734	13070
9	Agricultural equipment		268	395	772	903	970	983	1217	1370	1080	1027	914	1045
10	Machinery and equipment	31	63	23	17	21	19	20	170	74	188	184	156	642
11	Transport vehicles	196	1800	1285	2129	2725	3427	3515	3602	4490	5024	5608	5019	6760
12	Electrical goods	94	530	664	1039	954	933	969	1344	1969	1715	2059	2146	3020
13	Miscellaneous	1037	1930	2710	3092	3002	3737	4398	4951	6354	6023	6011	6489	6727
	Total	35893	88219	118452	147098	172204	178604	187097	205335	222752	240613	264378	289898	316952

166. Production of Selected Commodities. Production of selected commodities is shown in the table below.

Table 86

Production of Selected Commodities.

Sr. No.	Commodity	A/U	1961/62	1969/70	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85 (Provisional actual)	1985/86 (Provisional)
1		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Sugar	Thousand ton	55	54	21	29	29	34	39	39	46	43	39	56	65	65
2	Salt	"	124	182	200	127	196	198	239	240	243	252	265	276	281	315
3	Cigarette	Million Nos.	1114	1515	1411	2009	2458	2536	2545	2272	2737	2967	3189	2882	2764	2100
4	Cotton yarn	Thousand ton	3.0	13.0	6.3	11.5	13.2	14.8	14.0	12.9	16.3	16.0	18.0	15.0	15.6	14.5
5	Shirting 1/	Yard in lakh		250	55	84	153	128	228	260	265	267	257	246	219	208
6	Poplin	"		42.0	13.5	44.6	51.1	53.7	87.7	54.4	50.8	54.0	85.9	74.5	64.1	58.5
7	Gents' longyi	Nos in lakh		210.7	45.2	117.7	93.0	172.2	133.4	117.8	111.7	107.8	135.0	114.3	95.6	122.9
8	Ladies' longyi	"		51.4	9.1	10.3	10.2	20.1	12.7	7.8	1.8	1.5	3.6	2.5	3.8	4.2
9	Childrens' longyi	"		40.1	6.6	14.5	8.8	20.5	12.5	4.6	3.6	3.3	3.1	3.3	1.9	2.5
10	Vest	Million nos.	9.0	6.6	3.5	6.2	3.1	2.4	2.5	2.4	2.5	3.9	4.6	3.9	4.1	4.1
11	Towel	Nos. in lakh		21.8	9.6	16.2	18.9	16.5	16.2	17.3	17.6	19.6	21.0	17.7	18.4	16.3
12	Slurket	"		15.0	7.8	14.5	14.1	17.4	13.9	11.1	15.2	16.9	29.0	18.6	18.4	17.1
13	Mosquito netting	Yard in lakh		44.0	7.1	21.5	56.0	90.0	61.9	54.5	39.3	29.1	46.2	30.5	35.8	40.5
14	Gunny bag	Nos. in lakh	126	178	106	183	177	160	195	200	288	262	266	326	392	396
15	Umbrella	Doz. in thousand	102	97	50	51	60	79	75	36	16	30	42	33	19	15
16	Soap	Thousand metric ton	44.4	28.0	39.5	44.9	50.0	43.6	36.5	38.9	45.0	49.0	49.9	34.6	43.7	43.5
17	Matches	Case in thousand	306	285	145	133	124	126	135	134	123	98	145	126	121	132
18	Paper	and 2/ thousand metric ton		0.8	8.7	9.3	8.1	11.3	13.0	14.1	13.6	18.4	17.6	18.3	18.4	21.6
19	Pulp	"				0.2	0.3	1.3	1.5	2.3	4.7	4.1	4.5	7.5	7.9	6.6
20	Candle	"	8.1	8.1	3.3	3.0	4.0	6.1	7.1	10.8	13.3	13.5	9.4	2.1	2.1	2.4
21	Bricks and tiles	Nos. in lakh	679	1075	705	595	1381	1981	1095	1146	1231	1295	1217	1213	1444	1422
22	Cement	Thousand metric ton	33	165	202	198	255	273	274	388	377	307	335	315	299	477

1/ Includes production of cellulose since 1976/77.  
2/ Each case contains 1300 match boxes.

Table '86 (contd.)  
Production of Selected Commodities

Sr. No.	Commodity	A/U	1961/62	1969/70	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85 (Provi-sional actual)	1985/86 (Provi-sional actual)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
23	Sheet glass	Thousand metric ton								4.8	10.0	8.2	8.0	8.1	7.9	4.0
24	Wire nail	"	3.5	3.5	2.3	3.1	4.9	5.8	4.7	5.7	6.6	6.8	6.3	4.3	4.3	2.7
25	Aluminium wire	Pound in lakh	4	19	11	17	23	27	22	17	15	26	30	23.0	18.4	15.8
26	Motor spirit	Gallon in lakh	476	489	636	520	610	651	660	730	727	713	720	704	769	767
27	Kerosene	"	450	741	687	474	357	307	234	242	176	45	60	52	48	31
28	Diesel oil	"		699	742	658	745	837	872	933	870	931	992	939	1037	1109
29	Pumace oil	"	123	252	331	352	407	488	494	509	593	556	518	488	495	484
30	Incandescent lamp	Nos. in thousand		2685	1252	1043	1247	1692	1128	1763	2322	2999	3517	3619	3465	3000
31	Fluorescent lamp	"		183	607	830	739	542	151	52	150	341	307	498	431	440
32	Dry-cell-battery	"	6034	15700	15830	14668	16059	21415	19108	19442	16965	18697	21552	21232	18939	20724
33	Television receiver	Nos.									700	1394	306	891	1137	2900
34	Motorcar	"		1422	1077	817	1044	1145	1466	1467	1505	1802	1848	1907	1545	2504
35	Bicycle	"		6600	9760	9580	12916	11543	12880	9352	9582	13080	11000	11182	10208	14000
36	Water pump	Set.		2442	3968	4217	5778	5289	6210	4695	5355	4752	2788	4928	4200	4650
37	Tractor	Nos.		686	305	755	854	691	754	751	1073	620	784	637	385	511
38	Power tiller	"		90	95	30	230	155	193	350	809	548	212	425	393	350
39	Fertilizer	Thousand metric ton			117.0	118.2	130.6	135.1	128.8	132.3	132.6	124.9	101.6	122.9	157.1	354.3

167. Production of Processing and Manufacturing Sector by Ownership. The value of production by ownership is shown in the table below,

Table 87  
Production by Ownership  
(At 1969/70 constant prices)

(Kyat in lakh)

Sr. No.	Year	Production			
		State	Co-operative	Private	Total
1	2	3	4	5	6
1	1971/72	23732	1567	29276	54575
2	1972/73	17440	3532	29289	50261
3	1973/74	16229	1630	31815	49674
4	1974/75	18376	1041	31748	51165
5	1975/76	22337	1947	31551	55835
6	1976/77	25664	2008	32359	60031
7	1977/78	27819	2755	33795	64369
8	1978/79	27912	2730	35432	66074
9	1979/80	30346	2444	35605	68395
10	1980/81	33130	2603	37579	73312
11	1981/82	35576	2986	40145	78707
12	1982/83	36575	3072	42560	82207
13	1983/84	36182	2888	46235	85305
14	1984/85 (Provisional actual)	36804	3140	50857	90801
15	1985/86 (Provisional)	38641	3794	55386	97821

188. Production of processing and manufacturing sector by commodity group and ownership. The value of production for 1983/84, 1984/85 and 1985/86 by commodity group and ownership is shown in the table below.

Table 88

Production by Commodity Group and Ownership  
(At 1989/70 constant prices)

Sr. No.	Commodity	1983/84				1984/85 (Provisional actual)				1985/86 (Provisional)				Total
		State	Co-opera- tive	Private	Total	Total	Co-opera- tive	Private	Total	State	Co-opera- tive	Private		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1	Food and beverages	1369955	151692	3706663	5228310	1351559	181373	4108726	5641658	1308783	226267	4548188	6083238	
2	Clothing and wearing apparel	268557	96303	417681	782541	258979	80453	419916	759348	228025	99507	432438	759970	
3	Construction materials	279977	14583	187503	482063	276308	27071	190259	493638	323242	16615	193076	532933	
4	Personal goods	164175	1271	20091	185537	164169	1655	22219	188043	162815	2823	22662	188300	
5	Household goods	27016	494	12912	40422	28334	191	23757	52282	28563	238	25076	53877	
6	Printing and Publishing	142821	11792	933	155726	167053	6312	628	173993	133171	10679	5787	149637	
7	Industrial raw materials	500194	1020	117878	619092	507397	1178	156130	664705	590952	1803	148045	740800	
8	Mineral and petroleum products	380178	3633	60622	444433	410503	4666	61868	477037	411858	5157	63135	480150	
9	Agricultural equipment	28547			28547	24926			24926	30381			30381	
10	Machinery and equipment	6773		261	7034	4018	78	261	4447	27091	403	261	27755	
11	Transport vehicles	176984	165	24364	201513	179627	96	25603	205326	239065	510	22807	262382	
12	Electrical goods	49664		177	49841	60468		1077	61545	122502		1077	123579	
13	Miscellaneous	223329	7656	74497	305482	246924	10906	75276	333106	257669	15366	76055	349090	
	Total	3618170	288789	4623582	8510541	3680355	313979	5085720	9080054	3864117	379368	5510607	9782092	
	Percentage of ownership	42.4	3.4	54.2	100.0	40.5	3.5	56.0	100.0	39.5	3.9	56.6	100.0	

169. Production of Processing and Manufacturing Sector by Commodity Group. The progress in the production of processing and manufacturing sector by commodity group is shown in the table below.

Table 89  
Production of Processing and Manufacturing Sector by Commodity Group  
(Quantum Index 1969/70 = 100)

Sr. No.	Commodity Group	(Index)												
		1961/62	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85 (Provisional actual)	1985/86 (Provisional actual)
1	Food and beverages	82.4	99.6	103.9	108.6	111.9	115.6	120.2	127.9	137.2	144.9	156.8	169.2	182.5
2	Clothing and wearing apparel	87.4	60.0	91.0	104.8	122.1	111.7	116.0	117.0	119.9	126.6	115.9	112.5	112.6
3	Construction materials	79.5	89.0	83.5	87.1	97.1	100.1	121.2	125.5	122.0	124.9	126.3	103.1	139.6
4	Personal goods	75.8	85.7	107.7	130.8	120.9	114.1	115.6	138.9	161.6	157.1	120.7	122.3	122.5
5	Household goods	34.5	72.2	74.2	94.9	95.7	98.4	91.7	149.1	157.8	200.8	160.4	207.5	213.8
6	Printing and publishing	42.6	85.2	135.1	140.5	172.8	184.1	193.0	195.6	209.5	244.2	265.3	296.5	255.0
7	Industrial raw materials	141.7	110.9	134.0	145.8	178.1	204.1	213.0	256.8	280.4	287.8	321.1	344.8	384.3
8	Mineral and petroleum products	71.7	106.4	105.2	115.2	123.6	128.2	124.2	128.7	130.1	133.9	122.7	131.7	132.5
9	Agricultural equipment		79.5	118.5	155.0	286.0	262.2	229.8	235.8	205.8	197.3	188.5	164.6	200.6
10	Machinery and equipment	67.4	106.5	34.8	17.7	24.8	21.7	23.9	151.6	70.2	148.6	154.8	97.3	607.3
11	Transport vehicles	18.9	71.2	74.5	102.5	160.6	164.7	172.7	169.5	207.1	230.9	224.4	228.6	292.1
12	Electrical goods	25.4	97.5	99.6	89.9	92.7	80.0	103.2	139.6	210.5	162.7	175.7	217.0	435.7
13	Miscellaneous	120.2	163.2	194.4	226.5	221.9	269.9	296.6	270.6	364.2	337.8	350.1	381.8	400.0
	Total	82.4	94.6	103.2	111.0	119.0	122.2	126.5	135.6	145.5	152.0	157.7	167.9	180.9

## VI. POWER

### Plan Implementation of the Power Sector during the Fourth Four-Year Plan

170. The annual plans of the power sector were implemented during the Fourth FYP, and the value of net output at 1969/70 constant prices was K 242.7 million in 1982/83 as against the plan target of K 270.0 million achieving 89.9 per cent. In 1983/84 the value of net output was K 262.1 million as against the plan target of K 278.3 million achieving 94.2 per cent. In 1984/85 the value of net output was K 293.7 million as against the plan target of K 319.0 million achieving 92.1 per cent. In 1985/86 the final year of the Fourth FYP, the value of net output according to provisional data was K 357.7 million as against the plan target of K 373.4 million achieving 95.8 per cent. Therefore, the average annual plan performance during the Fourth FYP was 93.2 per cent. A comparison of the plan performance of the power sector as against the targets of the Fourth FYP approved by the Third Pyithu Hluttaw and annual plan targets is presented in the following table:-

Plan Performance of the Power Sector  
during the Fourth Four-Year Plan

Sr. No.	Particulars	Value of Net Output (K.million)			Performance (Percentage)	
		Fourth Four-Year Plan Target	Annual Plan Target	Performance	Against Fourth Four-Year Plan	Against Annual Plan
1	2	3	4	5	6	7
1	1982/83	270.0	270.0	242.7	89.9	89.9
2	1983/84	300.2	278.3	262.1	87.3	94.2
3	1984/85	353.8	319.0	293.7	83.0	92.1
4	1985/86	397.9	373.4	357.7	89.9	95.8
5	Annual average for four years	330.5	310.2	289.1	87.5	93.2

Progress of the Power Sector during the Fourth Four-Year Plan

171. The growth rates of the value of net output of the power sector during the Fourth FYP were 16.9 per cent in 1982/83, 8.0 per cent in 1983/84, 12.1 per cent in 1984/85, 21.8 per cent in 1985/86, thereby achieving the annual growth rate of 14.6 per cent.

Measures Taken for Achievement of the Plan Targets of the Power Sector

172. The main objectives of the power sector in the Fourth FYP were to supply electric power in line with requirement, to extend installed capacity, to extend and reinforce principal grid area, to give merit to low-cost technique generation, and to arrange systematically for effective end-use of power.
173. For achievement of the above objectives, measures taken were thermal generation in the short-run, installation of mini and mega hydro-electric power projects in conjunction with multi-purpose dam projects in the long-run, extension of principal grid area, emphasis to low-cost generation by hydroelectric power and remedial measures for reducing power losses.
174. The total power installed capacity for the Union was extended year by year. The total installed capacity increased from 692 megawatts in 1981/82 to 915 megawatts in 1985/86. The installed capacity of Electric Power Corporation (EPC) increased from 526 megawatts in 1981/82 to 704 megawatts in 1985/86. The installed capacity of other organizations increased from 166 megawatts in 1981/82 to 211 megawatts in 1985/86.
175. The installed capacity of the Electric Power Corporation by type in 1985/86 showed increase when compared with the base year 1981/82, natural gas power increased from 214 megawatts to 300 megawatts, hydroelectric power from 169 megawatts to 231 megawatts, diesel generation power from 69 megawatts to 93 megawatts and steam power from 74 megawatts to 80 megawatts.
176. Of the total installed capacity, increase in hydel power was due to installation of mini-hydro-electric power projects in States and Divisions for regional development, such as Dawngva Project, Ngalsipva Project, Zalwi Project in Haka, Falam and Tiddim Townships in the

Chin State and Mogoke Project and Yezin Project in the Mandalay Division, Mega hydro-electric power Projects were installed in conjunction with multi-purpose dam, such as Kinda Hydroelectric Power Project in Myittha Township, Mandalay Division. The increase of natural gas to 86 megawatts was due to installation of 14 numbers natural gas turbines each with 2.18 megawatts 7 numbers in Chauk, Magwe Division and 7 numbers in Kyaiklat, Irrawaddy Division, installation of 3 numbers each with 18.45 megawatts in Prome, Pegu Division, Myanaung, Irrawaddy Division, Thaton, Mon State. The increased capacity by steam was due to the installation of a steam turbine with 6 megawatts in Thaton. To fulfil the power requirement in the short-run period, diesel generators were extended with the installation of 24 megawatts during the Fourth FYP.

177. The Electric Power Corporation extended installed capacity and arrangements were made to maintain power supply and power demand in industries in the grid area. In the principal grid area the firm generation power in 1981/82, the base year of the plan was, 329 megawatts which increased to 394 megawatts in 1985/86.
178. With the extension of installed capacity, transmission and distribution lines were also extended mainly in the principal grid area. Transmission lines in 1985/86 compared to 1981/82 showed that 230 KV line increased from 250 miles to 511 miles, 132 KV line from 314 miles to 572 miles, 66 KV line from 438 miles to 459 miles and distribution lines were also extended from 8287 miles to 9409 miles.
179. A review of power losses during the Fourth FYP, shows that the rate of power losses was 32 per cent in 1981/82 and 29 per cent in 1985/86. Power losses occurred in transmission and distribution stages, the highest loss was in distribution accounting for 22 per cent of the total generation. Measures were taken to reduce power losses by eliminating the defects of the system in each stage for the effective utilization of electric power generated. Old distribution lines were being replaced in Rangoon and other towns and also new lines were being installed during the Fourth FYP. However, the rate of power losses occurring during the Fourth FYP is still above the normal rate and therefore continuous efforts would be made to reduce power losses.

### Electric Power Generation and Consumption

180. During the Fourth FYP, the Electric Power Corporation increased its power generation from 1395 million kilowatt hours in 1981/82 to 2321 million kilowatt hours in 1985/86 registering an average annual growth rate of 13.6 per cent. Of the total power generation in 1981/82, 916 million kilowatt hours or 66 per cent was by hydel and 479 million kilowatt hours or 34 per cent was by thermal. In 1985/86, 1024 million kilowatt hours or 44 per cent was by hydel and 1297 million kilowatt hours or 56 per cent was by thermal. The increase by thermal generation in 1985/86 was due to the installation of one 6 megawatt steam turbines, 14 natural gas turbines each with 2.8 megawatts and 3 natural gas turbines each with 18.45 megawatts during the Fourth FYP.
181. Electric power consumption increased from 950 million kilowatt hours in 1981/82 to 1648 million kilowatt hours in 1985/86 registering a growth rate of 14.8 per cent. Comparing the electric power consumption by type in 1985/86 with that of 1981/82 it was found that industrial power consumption increased from 499 million kilowatt hours to 956 million kilowatt hours registering an average annual growth rate of 17.6 per cent, domestic power consumption increased from 281 million kilowatt hours to 433 million kilowatt hours registering an average annual growth rate of 11.4 per cent, consumption in hospitals, offices and schools increased from 133 million kilowatts hours to 214 million kilowatt hours registering an average annual growth rate of 12.6 per cent, and general power consumption increased from 37 million kilowatt hours to 45 million kilowatt hours registering an average annual growth rate of 5.0 per cent.
182. The Electric Power Corporation had been endeavouring to reduce the average per unit cost of generation. In reviewing the average per unit cost of generation during the Fourth FYP, it was found that the per unit cost was 22.6 pyas in 1981/82, 23.8 pyas in 1982/83, 24.5 pyas in 1983/84, 26.5 pyas in 1984/85 and 22.6 pyas in 1985/86. The increase in the average per unit cost during the first three years was due to the increased cost of inter-industrial use and increase in the share of high-cost thermal generation. But the

average per unit cost decreased in 1985/86 due to the increase in power consumption. In the long-run, the average per unit cost of generation is expected to decrease as the share of low-cost hydro generation to total generation increases.

183. The average per unit selling prices were 27.8 pyas in 1981/82, 29.8 pyas in 1982/83, 30.1 pyas in 1983/84, 30.0 pyas in 1984/85 and 28.2 pyas in 1985/86. The increase in the average per unit selling price during the first three years was due to the increase in production cost and the fact that power consumption at the lower rate by industries was not substantially increased. But the average per unit selling price declined in 1985/86 due to increased power consumption by industries.

#### Public Investment in the Power Sector

184. In order to supplement power requirement of productive and services sectors, hydro-electric power projects, gas turbine electric power projects, steam turbine electric power projects and diesel generator projects were extended, and new and replacement of transmission and distribution lines were also extended by the EPC. To implement the above projects, the public investment in the power sector had been increased from K 379.7 million in 1981/82 to K 1012.3 million in 1985/86. The total investment for the four years amounted to K 2705.8 million.
185. Detailed statistics of the power sector during the Fourth FYP are shown in tables 90 to 94.

186. Power Installed Capacity. The position of the total installed capacity for the Union is shown in the table below.

Table 90  
Power Installed Capacity for the Union

(Megawatts) \*

Sr. No.	Year	Electric Power Corporation				Other	Total
		Hydel	Thermal	Gas Turbine	Diesel	Organiza- tions	
1	2	3	4	5	6	7	8
1	1961/62	84	55		50	52	241
2	1972/73	84	58		54	57	253
3	1973/74	168	58	54	54	57	391
4	1974/75	168	53	54	54	57	386
5	1975/76	168	53	104	55	57	437
6	1976/77	168	53	104	56	57	438
7	1977/78	168	63	104	55	114	504
8	1978/79	168	63	104	59	121	515
9	1979/80	168	63	140	64	133	568
10	1980/81	169	74	177	81	149	650
11	1981/82	169	74	214	69	166	692
12	1982/83	169	74	229	70	180	722
13	1983/84	169	74	282	73	182	780
14	1984/85 (Provisional; actual)	170	74	300	91	188	823
15	1985/86 (Provisional)	231	80	300	93	211	915

\* One megawatt is equivalent to one thousand kilowatt.

187. Functions of Electric Power Corporation. The electricity generated by the Electric Power Corporation and the consumption pattern together with the operating cost are shown in the table below.

Table 31.  
Units Generated, Consumed and Cost per Unit of Electricity

Sr. No.	Particulars	MU	1961/62	1969/70	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85 (Provisional actual)	1985/86 (Provisional actual)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Installed Capacity (Megawatt)		189	196	329	380	381	390	394	436	501	526	542	598	635	704
2	Installed Capacity (Within the principal grid area)	"	136	144	278	278	278	288	337	373	405	442	458	476	494	550
3	Available firm power (Within the principal grid area)	"	89	89	172	208	208	202	207	259	296	329	340	353	368	394
4	Units generated (Million K.W.H)		324	476	682	760	840	931	977	1081	1228	1395	1552	1675	1887	2321
5	Less losses in generation, transmission, distribution and departmental use	"	93	137	174	204	212	244	264	319	374	445	502	553	624	673
6	Units Consumed (4-5)	"	211	339	508	554	628	677	691	762	854	950	1050	1122	1263	1642
1	Industrial	"	97	155	267	293	347	379	374	407	457	499	552	585	651	956
2	Domestic	"	80	109	145	158	174	188	200	217	243	281	316	341	373	433
3	Hospitals, Offices, Schools, etc.	"	38	52	70	79	81	83	89	109	122	133	145	158	169	214
4	Miscellaneous	"	16	23	26	26	26	27	28	29	32	37	37	38	40	45
7	Total earnings (Kvats in Lakh)		657	938	1138	1261	1448	1661	1779	1903	2143	2642	3132	3379	3789	4643
8	Cost per unit	P/wh	29.3	21.8	20.7	20.9	21.4	20.1	21.7	20.0	20.5	22.6	21.8	24.5	26.5	22.6
9	Per unit sales value	"	28.4	27.6	22.4	22.7	22.8	24.3	24.8	25.3	25.1	27.3	29.8	30.1	30.0	28.2

TABLE 92. ELECTRICITY GENERATION AND LOSSES. The changes in electricity losses in generation, transmission and distribution according to the various types of generation are shown in the table below.

Table 92

Electricity Generation and Losses

Sr.	Particulars	1981/82		1982/82		1983/84		1984/85 (Provisional Actual)		1985/86 (Provisional)	
		Million KWH	Percentage	Million KWH	Percentage	Million KWH	Percentage	Million KWH	Percentage	Million KWH	Percentage
1	2	3	4	5	6	7	8	9	10	11	12
1	Total Electricity Generated	1395	100	1552	100	1675	100	1847	100	2321	100
1	Hydro Electricity	916	66	968	62	993	59	1011	54	1024	44
2	Steam Power	76	5	76	5	72	4	51	3	77	3
3	Gas Power	350	25	484	29	550	33	765	40	1150	50
4	Diesel Electricity	52	4	58	4	60	4	70	4	70	3
2	Electricity Losses	445	32	502	33	553	33	622	34	673	29
1	Losses in Generation	45	3	45	3	42	2	46	2	63	2
2	Losses in Transmission	67	5	93	6	83	5	90	5	116	5
3	Losses in Distribution	109	22	379	22	400	24	474	23	497	20
4	Miscellaneous	24	2	25	2	28	2	54	3	37	2

189. Mileage of Transmission and Distribution Lines. The mileage of transmission and distribution lines by kilowatt voltage is shown in the table below.

Table 93  
Total Mileage of Electric Power Lines

								(Miles)
Sr.	No.	Particulars	1961/62	1981/82	1982/83	1983/84	1984/85 (Provi- sional actual)	1985/86 (Provi- sional)
1	2	3	4	5	6	7	8	
1		Transmission Lines						
	1	Overhead Cable						
	1	230 K.V line	250	250	250	250	366	511
	2	132 K.V line	224	314	434	470	470	572
	3	66 K.V line	10	438	438	438	455	459
2		Distribution Lines						
	1	Overhead Cable						
	1	33 K.V line	472	1011	1126	1177	1316	1456
	2	11 K.V line	1492	2460	2466	2542	2678	2700
	3	6.6 K.V line	196	195	210	215	242	300
	4	3.3 K.V line	33	14	14	14	14	13
	5	0.4 K.V line	3125	4143	4110	4140	4292	4300
	2	Underground Cable						
	1	33 K.V line	30	94	88	88	100	120
	2	11 K.V line		4	7	7	10	20
	3	6.6 K.V line	103	256	259	262	267	320
	4	0.4 K.V line	53	110	115	115	120	180

190. Electrified Towns and Villages. The position of electrified towns and villages is shown in the table below.

Table 94  
Electrified Towns and Villages

Sr. No.	Year	Town	Village
1	2	3	4
1	1961/62	317	371
2	1969/70	335	408
3	1972/73	262	516
4	1973/74	263	652
5	1974/75	263	695
6	1975/76	263	708
7	1976/77	263	709
8	1977/78	264	709
9	1978/79	264	709
10	1979/80	264	709
11	1980/81	267	711
12	1981/82	270	712
13	1982/83	272	714
14	1983/84	274	718
15	1984/85 (Provisional actual)	281	719
16	1985/86 (Provisional)	287	719

## VII. CONSTRUCTION

### Plan Implementation of the Construction Sector during the Fourth Four-Year Plan

191. The implementation of the annual plan targets of the construction sector during the Fourth FYP shows that in 1982/83, the value of net output at 1969/70 constant prices was K 483.5 million as against the plan target of K 529.7 million, thereby achieving 91.3 per cent of the plan target. In 1983/84, the value of net output was K 506.7 million as against the plan target of K 538.6 realising 94.1 per cent. In 1984/85, the value of net output according to the provisional actual, was K 548.5 million as against the plan target of K 556.6 million realising 98.5 per cent. In 1985/86, the value of net output according to the provisional data, was K 561.5 million as against the plan target of K 562.0 million, thereby achieving 99.9 per cent of the plan target. Therefore, the average annual performance of the construction sector during the Fourth FYP was 96.0 per cent of the plan target. A comparison of the plan performance of the construction sector as against the targets of the Fourth FYP approved by the Third Pyithu Hluttaw and annual plan targets is presented in the following table:-

Plan Performance of the Construction Sector  
during the Fourth Four-Year Plan

Sr. No.	Particulars	Value of net output (K. million)			Performance (Percentage)	
		Fourth Four-Year Plan Target	Annual Plan Target	Performance	Against Fourth Four-Year Plan	Against Annual Plan
1	2	3	4	5	6	7
1	1982/83	529.7	529.7	483.5	91.3	91.3
2	1983/84	537.7	538.6	506.7	94.2	94.1
3	1984/85	548.9	556.6	548.5	99.9	98.5
4	1985/86	561.7	562.0	561.5	100.0	99.9
5	Annual average for four years	544.5	546.7	525.1	96.4	96.0

Progress of the Construction Sector during the Fourth Four-Year Plan Period

192. A review of the implementation of the annual plan targets of the construction sector during the Fourth FYP shows a growth rate of 6.3 per cent in 1982/83, 4.8 per cent in 1983/84, 8.2 per cent in 1984/85 and 2.4 per cent in 1985/86. Thus, the average annual growth rate during the Fourth FYP was 5.4 per cent.

Measures Taken for Achievement of the Plan Targets of the Construction Sector

193. The major objectives laid down for the construction sector during the Fourth FYP were: to give first priority to the construction of roads and bridges and commercial buildings required for economic and regional development, second priority to social services buildings such as hospitals, offices and schools and third priority to administrative buildings. As regards construction of residential buildings, priority was given to construction of quarters for factory workers. Measures taken were to promote efficiency in construction works, by completing works according to the time schedule, thereby reducing construction costs, to provide the required construction materials to the private sector as much as possible; and to establish more construction co-operative societies to expand their construction activities. Measures taken to achieve the above objectives were co-ordinating the construction workloads of various organizations of the economic sectors with construction capacity, supervising and monitoring the construction work to reduce costs, maintaining the quality of buildings by proper adherence to standard construction norms and specifications, supervising to minimize wastages and losses, systematic co-ordination and co-operation by the Construction Corporation for works undertaken for other State organizations. Some organizations also undertook the construction works.
194. The above measures and work programmes were laid down for successful implementation of the plan targets in the construction sector during the Fourth FYP period. To complete the construction works within the specified period, co-ordination and programming were carried out for availability of construction materials and transportation of the materials to the required regions in time and also for availability of the required manpower.

Furthermore, to promote construction efficiency roads, bridges and buildings were constructed in line with climatic and regional conditions using modern construction techniques. With the systematic implementation of the Construction Industry Project, work efficiency of the technicians were promoted and technical assistance provided for improvement in the quality of construction works.

#### Progress in Construction Works

195. During the Fourth Four-Year Plan, the total targeted value of K 12472.5 million was planned for the construction of roads and bridges, factories, workshops, schools, hospitals, offices and residential buildings, irrigation works and embankments, electric power distribution and transmission lines, rail tracks, airstrips, jetties and wharves, etc. Of the planned total value of K 12472.5 million, K 11804.7 million was for the State sector and K 1387.8 million for the Co-operative and Private sectors. The total construction value undertaken during the Fourth FYP was K 11821.0 million of which K 10406.4 million was for the State sector and K 1414.6 million was for the Co-operative and Private sectors. The performance of the plan targets during the Fourth FYP by type of works for the public sector was as follows:-

- the construction value of roads and bridges was K 871.9 million.
- the construction value of factories, workshops, schools, hospitals, offices and residential buildings was K 5345.9 million.
- the construction value of irrigation works and embankment was K 1343.4 million.
- the construction value of electric power distribution and transmission lines was K 406.0 million.
- the construction value of rail tracks, airstrips, jetties and wharves was K. 272.1 million.
- the construction value of works for mine development was K 45.6 million.
- the construction value of other works was K 869.8 million.
- the construction value for renovation and improvement works of roads, bridges, buildings and others was K 1251.7 million.

196. During the Fourth FYP, for socio-economic development, the total length of the main roads was extended by 288 miles, bringing the total length to 11964 miles in 1985/86, as compared with the total length of 11676 miles in 1981/82 the base year. Improvement and upgrading of the existing roads as well as maintenance works were undertaken. The construction and improvement of roads during the Fourth FYP were:

- Bassein - Monywa road;
- Toungoo - Prome - Toungup road;
- Rangoon - Yangoon - Pantanaw - Kyaunggon - Bassein road;
- Mandalay - Sagaing - Monywa - Gangaw - Haka road;
- Mandalay - Mogok - Si U - Bhamo road;
- Mandalay - Shwebo - Myitkyina road;
- Pyinmana - Pinlaung road;
- Rangoon - Mandalay - Lashio - Bhamo - Myitkyina road;
- Rangoon - Moulmein - Tavoy - Mergui road; and
- Chauk - Meiktila - Taunggyi - Kengtung - Tachileik road.

197. During the Fourth FYP, 14 bridges, including Thuwunna bridge across the Ngamoyeik creek, were constructed with modern techniques. The total investment for roads and bridges undertaken by the Ministry of Construction was K 735.1 million.

198. During the Fourth FYP, the construction sector implemented Public Housing Projects and Government Employees' Housing Projects. In addition, with the collaboration of the Housing Department, construction of Joint Housing Project, Ownership Housing Project and Housing Project for outright sales have been undertaken. Thus the number of buildings increased from 1925, comprising 11814 units in 1981/82, to 2062 buildings, comprising 13140 units in 1985/86.

#### Public Investment in the Construction Sector

199. To promote construction and maintenance works of roads, bridges, buildings, etc; public investment in the construction sector was increased annually. In 1981/82, the public investment was K 176.8 million and increased to K 306.7 million in 1985/86. The total public investment for the Fourth FYP period amounted to K 1177.3 million.

200. Detailed statistics of the construction sector are presented in tables 95 to 98.

201. Volume of Construction Works. The volume of construction works is shown in the following table.

Table 95

Volume of Construction Works

(Kyat in lakh)

Sr. No.	Particulars	1981/82	1982/83	1983/84	1984/85 (Provi- sional actual)	1985/86 (Provi- sional)
1	2	3	4	5	6	7
1	State sector	19190	23901	25127	27396	27640
1	Construction works	16635	21303	22194	24134	23916
1	Roads and bridges	1472	2140	2072	2203	2304
2	Industrial buildings, workshops, schools, hospitals, offices, residential buildings	9539	12011	13781	14221	13446
3	Irrigation and embank- ments	3133	3503	3148	3407	3376
4	Electric power trans- mission/distribution lines	669	755	798	1235	1272
5	Railtracks, air-strips, jetties, wharves and other related works	559	587	571	530	1033
6	Mine development and related works	144	101	118	159	78
7	Others	1119	2206	1706	2379	2107
2	Renovation and improve- ment works	2555	2598	2923	3262	3724
1	Roads and bridges	1967	2065	2352	2442	2541
2	Buildings and others	588	533	581	820	1183
2	Co-operative sector	125	222	278	350	294
3	Private sector	3162	3171	3180	3213	3438
	Total	22477	27294	28585	30959	31372

202. Union Highways and Main Roads. The construction of Union highways and main roads is shown in the following table.

Table 96  
Union Highways and Main Roads  
(At the end of the year)

(Miles)

Sr. No.	Year	Union highways	Main roads	Total
1	2	3	4	5
1	1961/62	2284	4102	6386
2	1962/63	2394	4120	6514
3	1963/64	2452	4272	6724
4	1964/65	2452	4947	7399
5	1965/66	2452	5065	7517
6	1966/67	2452	5411	7863
7	1967/68	2452	5518	7970
8	1968/69	2452	5630	8082
9	1969/70	2452	5734	8186
10	1970/71	2452	5813	8265
11	1971/72	2452	6018	8470
12	1972/73	2452	10990	13442
13	1973/74	2452	11194	13646
14	1974/75	2452	11318	13770
15	1975/76	2452	11429	13881
16	1976/77	2452	11468	13920
17	1977/78	2452	11496	13948
18	1978/79	2452	11515	13967
19	1979/80	2452	11530	13982
20	1980/81	2452	11609	14061
21	1981/82	2452	11676	14128
22	1982/83	2452	11768	14220
23	1983/84	2452	11827	14279
24	1984/85 (Provisional actual)	2452	11881	14333
25	1985/86 (Provisional)	2452	11964	14416

203. Construction Corporation. The position of the construction works by type of buildings undertaken by the Construction Corporation is shown in the following table.

Table 97  
Construction Works undertaken by the Construction Corporation

Sr. No.	Particulars	1981/82		1982/83		1983/84		1984/85 (Provisional actual)		1985/86 (Provisional)	
		Completed	In progress	Completed	In progress	Completed	In progress	Completed	In progress	Completed	In progress
1		1	4	5	6	7	8	9	10	11	12
1	Industrial buildings	100	37	83	34	108	50	75	56	75	56
2	Commercial buildings	161	33	141	35	145	89	182	39	139	71
3	Social services buildings	21	8	70	6	90	57	72	90	69	73
4	Administrative buildings	43	31	82	57	96	49	110	80	116	131
5	Residential buildings	1555	146	1514	221	827	783	1630	574	1274	586
6	Others	1027	277	1225	414	1298	696	1622	697	1715	787
	Total	2907	532	3115	767	2564	1724	3691	1518	3368	1674

Note:- Completed during the year.

204. State Residential Buildings. The position of State residential buildings is shown in the following table.

Table 98  
State Residential Buildings

Sr. No.	Name of Organization	1981/82			1982/83			1983/84			1984/85 (Provisional actual)			1985/86 (Provisional)		
		No. of buildings	Units	No. of buildings	Units	No. of buildings	Units	No. of buildings	Units	No. of buildings	No. of buildings	Units	No. of buildings	Units	No. of buildings	Units
1.	2	3	4	5	6	7	8	9	10	11	12					
1	The Central Organs of State Power	1424	2178	1434	2188	1448	2202	1461	2216	1484	2239					
2	Ministry of Agriculture and Forests	7755	16143	8338	17502	7765	16379	8115	17019	8472	17657					
3	Ministry of Livestock Breeding and Fisheries					1139	2475	1258	2742	1347	2951					
4	Ministry of Mines	3338	8977	3354	8398	3705	8947	3757	9005	3834	9264					
5	Ministry of Industry I*	3330	6773	3625	7580	4295	9225	4432	9313	4588	9381					
6	Ministry of Industry II*	6917	11653	7316	12249	7362	13237	7853	14063	1720	3660					
7	Ministry of Energy*									6580	11175					
8	Ministry of Construction	5244**	20423**	5261	20519	5407	21009	5520	21346	5568	22124					
9	Ministry of Transport and Communications	7490	20380	7579	20491	7704	16897	7879	17124	8035	17455					
10	Ministry of Education	1124	2463	1155	2540	1196	2611	1283	2734	1336	2817					
11	Ministry of Health	2068	7219	2087	7249	2088	7260	2090	7261	2091	7289					
12	Ministry of Information	168	433	172	452	267	660	267	660	267	660					
13	Ministry of Culture	38	96	41	113	43	117	46	130	48	135					
14	Ministry of Planning and Finance	452	2433	456	2438	471	2466	481	2492	494	2514					
15	Ministry of Social Welfare	115	222	115	222	115	222	115	222	115	222					
16	Ministry of Home and Religious Affairs	11261	43748	11516	44575	12469	46086	12689	46619	12823	47139					
17	Ministry of Trade	211	474	213	521	214	522	214	520	214	520					
18	Ministry of Defence	1195	2864	1216	2895	1353	3144	1419	3284	1463	3391					
	Total	52130	146479	53868	149912	57041	153459	58879	156750	60589	160597					

\* Adjusted according to the reorganization of ministries in 1985/86

\*\* According to the latest available data.

# VIII. TRANSPORT AND COMMUNICATIONS

## Plan Implementation of the Transport Services during the Fourth Four-Year Plan

205. The implementation of the annual plans during the Fourth FYP of transport services in the transport and communications sector showed that the net value at 1969/70 constant price in 1982/83 was K 926.9 million as against the target of K 879.6 million representing 105.4 per cent. In 1983/84 the net value of the transport services was K 980.5 million as against the target of K 946.8 million representing 103.6 per cent. In 1984/85, according to provisional actual, the net value of the transport services was K 1017.1 million as against the target of K 1023.4 million representing 99.4 per cent. In 1985/86 the net value according to provisional data was K 1071.9 million as against the target of K 1073.8 million representing 99.8 per cent. Therefore, during the Fourth FYP the average annual performance was 101.9 per cent. A comparison of the plan performance of the transport services as against the targets of the Fourth FYP approved by the Third Pyithu Hluttaw and annual plan targets is presented in the following table.

Plan Performance of Transport Services  
during the Fourth Four-Year Plan

Sr. No.	Particulars	Net Services Value (K. million)			Performance (Percentage)	
		Fourth Four-Year Plan Target	Annual Plan Target	Performance	Against Fourth Four-Year Plan	Against Annual Plan
1	2	3	4	5	6	7
1	1982/83	879.6	879.6	926.9	105.4	105.4
2	1983/84	940.2	946.8	980.5	104.3	103.6
3	1984/85	1001.7	1023.4	1017.1	101.5	99.4
4	1985/86	1066.9	1073.8	1071.9	100.5	99.8
5	Annual average for four years	972.1	980.9	999.1	102.8	101.9

Progress of Transport Services of the Transport and Communications Sector during the Fourth Four-Year Plan

206. The growth rates of the transport services during the Fourth FYP were 9.5 per cent in 1982/83, 5.8 per cent in 1983/84, 3.7 per cent in 1984/85 and 5.4 per cent in 1985/86. Thus the average annual growth rate during the Fourth FYP was 6.1 per cent.

Measures Taken for Achievement of Plan Targets of Transport Services

207. The main objectives of the transport services during the Fourth FYP were to expand transport facilities in accordance with the increase in the production of the productive sectors, such as agricultural, livestock and fishery, forestry, mining and processing and manufacturing sectors, to fully utilize the capacity of the State transport vehicles by systematic control and effective supervision, and to commercialize State transport services so as to increase income as well as minimize transport difficulties.
208. Measures taken for successful implementation of objectives were as follows:-
- expansion of transport facilities in accordance with transport demand
  - full utilization of existing transport facilities through systematic repairs and maintenance of vehicles
  - expansion of internal and external transport services.
209. Transport and communications sector is an infrastructure sector providing services for movement of commodities, machinery and equipment required by the productive sectors, and also providing passenger transport services for the development of the economy. Programming and co-ordinating of transport services in accordance with the transport demand had been carried out for the smooth flow of goods and passengers during the Fourth FYP.
210. In order to increase the volume of transport services, existing transport facilities were fully utilized. Full utilization of existing transport facilities were carried out by systematic control and maintenance of the private transport services and by new transportation programmes. During the plan period repairs and maintenance of the fleet were carried out: in rail transport, annual average of 47

steam locomotives for minor repairs and 18 steam locomotives for major repairs, 97 diesel locomotives for minor repairs and 57 diesel locomotives for major repairs, 519 passenger coaches for major repairs, 290 wagons for minor repairs and 2220 wagons for major repairs; in road transport, an annual average of 918 major repairs for motor-vehicles; and in water transport, an annual average of 1973 of water craft for minor repairs and 751 repairs of water craft for major repairs were undertaken.

211. In order to increase the haulage and for convenience a new transport programme was adopted and fixed fares for short haul were introduced not only in the public sector but also in the private sector. Co-operative and private transportation services also played an important role for smooth transportation. With a view to increasing transport service, proper control and co-ordinations were made by Central Movement Co-ordination Committee and Private Buses Control Committee. Priorities were given to the investment programmes for expansion of public internal and external transport services during the Fourth FYP. As regards internal transport services, first priority was given to rail transport, second to riverine transport and third to road transport, and in the external transport services, priority was given to overseas shipping transport.
212. Due to investment made in the Fourth FYP, transport facilities had increased. Reviewing the position of the public transport facilities of transport and communications sector, 140 steam locomotives, 227 diesel locomotives, 960 passenger coaches, 7234 wagons in the Burma Railways Corporation; 174 passenger cum cargo powered vessels, 50 powered cargo barges, 58 tug and cargo boats, 258 barges, 74 station pontoons, 39 oil barges (dumb) in the Inland Water Transport Corporation; 1289 passenger buses, 404 taxies, 2699 haulage trucks in the Road Transport Corporation; 16 ocean-going cargo vessels, 6 passenger/cargo coastal vessels in the Burma Five Star Shipping Corporation; and 5 number F27 and 3 numbers F28 Fokker aircraft, 3 numbers helicopters in the Burma Airways Corporation were operated for transport services during 1985/86.

#### Progress in Transport Services

213. During the Fourth FYP, 330.0 million metric tons of freight were transported in the transport services of the transport and communications sector. In comparing the volume of freight carried according to haulage in 1985/86 with that of 1981/82, the increase in freight volume was as follows:-
- 44.9 million metric tons to 52.7 million metric tons in short haul
  - 15.6 million metric tons to 19.0 million metric tons in medium haul and
  - 13.7 million metric tons to 16.6 million metric tons in long haul.
214. During the Fourth FYP, transportation of freight volume of public transport organizations in 1985/86 compared with that of 1981/82 showed that:-
- transportation of the Burma Railways Corporation increased from 347.3 million ton miles to 350.3 million ton miles
  - transportation of the Inland Water Transport Corporation increased from 189.5 million-ton miles to 276.6 million-ton miles
  - transportation of the Road Transport Corporation increased from 144.1 million-ton miles to 153.3 million-ton miles
  - the Burma Five Star Shipping Corporation could only transport 3775.0 million-ton miles compared with 5271.6 million-ton miles
  - the Burma Airways Corporation transported 1.6 million-ton miles in 1985/86 as in 1981/82.
215. In reviewing the freight volume of public transport organizations, the volume of freight transported by the Burma Five Star Shipping Corporation declined in 1985/86 compared with that of 1981/82 due to the special fertilizer lift arranged in 1981/82.
216. During the Fourth FYP, the transportation of passenger service of public transport organizations in 1985/86 compared with that of 1981/82 showed that:-
- the Burma Railways Corporation increased its transportation from 2120.1 million passenger miles to 2339.3 million passenger miles

- the Inland Water Transport Corporation increased its transportation from 323.4 million passenger miles to 429.1 million passenger miles
- the Road Transport Corporation could transport 873.9 million passenger miles compared with 886.1 million passenger miles
- the Burma Five Star Shipping Corporation increased its transportation from 21.7 million passenger miles to 29.7 million passenger miles
- the Burma Airways Corporation could transport 126.3 million passenger miles compared with 139.7 million passenger miles.

217. Thus the passenger service of the Road Transport Corporation and the Burma Airways Corporation declined in 1985/86 as compared with that of 1981/82. The decline was due to decrease of transport facilities and abolition of some passenger bus routes of the Road Transport Corporation.

#### Public Investment in Transport Services

218. The allocation of investment for public transport services increased in line with the development of the State's economy. The investment of public transport services in 1981/82 was K 469.4 million and increased to K 823.0 million in 1985/86 totalling K 2046.7 million for the four years.

#### Plan Implementation of Communication Services of Transport and Communications Sector during the Fourth Four Year Plan

219. Implementation of the annual plans during the Fourth FYP for communication services of the transport and communications sector showed that the net value of services at 1969/70 constant prices in 1982/83 was K 114.5 million as against the target of K 82.5 million realizing 138.8 per cent. In 1983/84, the net value amounted K 129.9 million as against the target of K 99.9 million realizing 130.0 per cent. In 1984/85, according to the provisional actuals, the net value of services amounted to K 132.0 million as against the target of K 130.4 million realizing 101.2 per cent. In 1985/86, according to provisional data, the net value of services amounted to K 149.3 million as against the target of K 151.9 million, realizing 98.3 per cent, thus achieving an average annual performance of 113.1

per cent of the plan target during the Fourth FYP. A comparison of the performance of communication services as against the targets of the Fourth FYP approved by the Third Pyithu Hluttaw and the annual plan targets is shown in the following table.

Plan Performance of the Communication Services  
during the Fourth Four-Year Plan

Sr. No.	Particulars	Net Services Value (K. million)			Performance (Percentage)	
		Fourth Four-Year Plan Target	Annual Plan Target	Performance	Against Fourth Four-Year Plan	Against Annual Plan
1	2	3	4	5	6	7
1	1982/83	82.5	82.5	114.5	138.8	138.8
2	1983/84	104.9	99.9	129.9	123.8	130.0
3	1984/85	111.7	130.4	132.0	118.2	101.2
4	1985/86	122.0	151.9	149.3	122.4	98.3
5	Annual average for four years	105.3	116.2	131.4	124.8	113.1

Progress of Communication Services of the Transport and Communications Sector during the Fourth Four-Year Plan

220. The growth rates of communication services of the transport and communications sector during the Fourth FYP were 26.0 per cent in 1982/83, 13.4 per cent in 1983/84, 1.6 per cent in 1984/85 and 13.1 per cent in 1985/86. The average annual growth rate during the Fourth FYP was 13.2 per cent.

Measures taken for Achievement of Plan Targets of Communication Services of the Transport and Communications Sector

221. The main objective of the communication services of the transport and communication sector during the Fourth FYP was to extend the communication services in the areas of economic, social and political importance. To fulfil this objective, priority was given for the introduction of modernized system of communication services in such areas.
222. It is necessary to provide communication services in accordance with the social and economic development of the country. During the Fourth FYP, extension of communication services were carried out in accordance with the development of the economy with the implementation of Telecommunication Development Project. Satellite communication system was introduced to modernize the external communication services. The installation of automatic telephones and automatic exchanges were carried out during Fourth FYP. Hence, automatic telephones had been installed in 19 towns of which 14 towns had trunk dialling system at the end of 1985/86. The communication services mainly provide telecast of television programmes through the use of micro-wave channel. Furthermore, enhancement of meteorological information was made to assist agricultural activities and prevent natural disasters.

The Position of Communication Services of the Transport and Communications Sector

223. Comparison of communication services between the base year 1981/82 and 1985/86, the last year of the Fourth FYP were as follows:-
- the number of post-offices increased from 1107 to 1126
  - the number of telephones increased from 47001 to 55935

- the number of telegraph offices increased from 293 to 336
- the number of telex increased from 76 to 160, respectively.

Of particular significance was the extension of television programmes in four States and Divisions.

#### Public Investment in Communication Services

224. The public investment of the communication services of the transport and communications sector during the Fourth FYP was K 60.1 million in 1981/82 and K 234.4 million in 1985/86 and the investment for the four years totalled K 669.1 million.
225. Details of the transport and communications sector during the Fourth FYP are presented in tables 99 to 106.

226. Total Internal Freight Volume. Total internal freight volume by type of haulage is shown in the table below.

Table 99

Total Internal Freight Volume

(Thousand metric ton)

Sr. No.	Particulars	1981/82	1982/83	1983/84	1984/85 (Provi- sional actual)	1985/86 (Provi- sional)
1	2	3	4	5	6	7
1	Domestic output*	72934	76230	79825	82772	87363
2	Imports	1147	1186	805	888	928
3	Total internal freight volume (1+2)	74081	77416	80630	83660	88291
1	Short haul	44868	46783	48502	50225	52680
2	Medium haul	15560	16719	17132	18089	19022
3	Long haul	13653	13914	14996	15346	16589
4	Transportation by state owned transport organizations	5262	5560	5744	5772	5633
1	Burma Railways Corporation	2375	2293	2243	2120	2303
2	Inland Water Transport Corporation	1595	1870	2128	2301	2000
3	Road Transport Corporation	1158	1268	1237	1300	1283
4	Burma Five Star Shipping Corporation (Coastal transport)	134	129	136	51	47
5	Transportation by other State owned organizations	5623	5737	5119	5694	6266

\* Tonnage of commodities required for transportation only,

Table 99 (Concl'd.)  
Total Internal Freight Volume

		(Thousand metric ton)				
Sr. No.	Particulars	1981/82	1982/83	1983/84	1984/85 (Provi- sional actual)	1985/86 (Provi- sional)
1	2	3	4	5	6	7
6	Transportation by co- operative and private transport organizations	63196	66119	69767	72194	76392
1	Transportation by co- operative transport organizations	2072	1875	2194	2247	3210
2	Transportation by private transport organizations	61124	64244	67573	69947	73182
7	Total internal freight volume	74081	77416	80630	83660	88291

227. State Owned Transport. Total volume of transportation by state organizations is shown in the table below.

Table 100

Internal and External Transportation of Passengers and Freight by State Owned Conveyances

Sr. No.	Particulars	A/U	(In thousand)														
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Rail Transport																
1	Passengers	Number	51036	49035	32053	34469	45534	49614	52821	57574	62111	61198	60435	62306			
2	Passenger miles	Passenger miles	1979387	2155430	1728244	1779294	1903051	2007523	2117412	2120064	2341642	2282283	2228844	2339291			
3	Freight ton	Ton	1560	1620	1675	1831	1884	2191	2258	2337	2257	2208	2087	2267			
4	Freight ton miles	Ton miles	248175	237351	242493	276572	287735	326528	333226	347311	252235	350308	313050	350285			
2	Water Transport																
1	Inland transport																
1	Passengers	Number	9472	11183	11561	11691	13169	13467	14209	17934	19134	19618	20112	20088			
2	Passenger miles	Passenger miles	31277	234063	240273	211008	222945	254206	264654	323369	352828	377026	423429	429124			
3	Freight ton	Ton	1098	1746	912	1037	1016	1333	1414	1595	1870	2128	2301	2000			
4	Freight ton miles	Ton miles	327473	340556	116104	137770	156871	176702	192068	189517	236553	263026	289790	276636			
2	Overseas and coastal transport																
1	Passenger	Number	26	22	24	21	17	21	54	62	60	79	75	72			
2	Passenger miles	Passenger miles	11128	9617	7921	6688	5440	8724	18900	21700	21183	32548	30900	29664			
3	Freight ton	Ton	533	469	516	519	655	766	931	1146	1166	976	927	804			
4	Freight ton miles	Ton miles	2045768	1868935	1881808	1696306	2581134	3111884	4012898	5271587	5160035	4587490	4213988	3774957			
3	Road Transport																
1	Passenger service division																
1	Passengers (bus)	Number	141587	146914	175640	190467	174324	157775	138092	155792	149774	104779	94218	136227			
2	Passengers miles (bus)	Passenger miles	481418	477031	712665	841456	785479	785101	733868	835378	771486	716617	687432	828591			
2	Taxi Division																
1	Passengers (taxi)	Number	5095	5045	5081	5076	5131	5130	4564	4612	5169	5172	5180	5154			
2	Passenger miles (taxi)	Passenger miles	20063	22923	22454	23099	24064	24050	15495	15681	17574	17590	17600	17499			

\* Figures of internal and external passenger services include total ton, passenger ton and cubic ton.

Table 100 (Cont'd)  
Internal and External Transportation of Passengers and Freight by State Owned Conveyances

(In thousand)

Sr. No.	Particulars	A/U	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85 (Provi- sional actual)	1985/86 (Provi- sional)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
3	Haulage Division													
1	Freight ton	Long ton	1088	1124	1042	1006	951	993	1049	1140	1248	1217	1280	1268
2	Freight ton miles**	Ton miles	63078	69990	95582	107526	116707	126933	124795	144072	157082	147800	170551	152307
3	Passenger cum cargo	Number	4039	4065	4058	4882	4685	4966	4431	3802	4175	3721	3178	4510
4	Passenger cum cargo miles	Passenger miles	21517	21714	28998	22869	27389	30072	34972	34013	32815	29381	27226	27766
4	Air Transport													
1	Internal flight													
1	Passengers	Number	371	399	409	536	497	543	536	519	503	451	433	412
2	Passenger miles	Passenger miles	84889	91104	94182	109935	103843	111281	110814	113305	112763	108243	108609	100670
3	Freight ton	Short ton	3.5	3.9	4.4	5.0	4.5	4.9	4.4	4.9	4.3	4.5	2.1	3.2
4	Freight ton miles	Ton miles	833	911	1016	1113	1087	1137	1067	1130	1053	963	931	955
2	External flight													
1	Passengers	Number	51	43	43	46	43	56	49	48	49	50	54	49
2	Passengers miles	Passenger miles	31748	20060	21652	22854	22589	29866	26381	26437	26032	26219	27465	25640
3	Freight ton	Short ton	1.1	0.6	0.5	0.4	0.5	0.7	0.7	0.7	0.7	0.6	0.6	0.6
4	Freight ton miles	Ton miles	878	231	271	255	303	445	461	514	475	448	465	670

\*\* Excludes accompanied luggage of passengers.

228. Volume of Port Handling Services. The volume of port handling services for coastal and overseas transportation is shown in the table below.

Table 101  
Volume of Handling Services for Coastal and Overseas Transportation  
(Thousand metric ton)

Sr. No.	Year	Rangoon Port				Outputs:				Total			
		Export		Import		Export		Import		Export		Import	
		Coastal	Overseas	Coastal	Overseas	Coastal	Overseas	Coastal	Overseas	Coastal	Overseas	Coastal	Overseas
1	1	3	4	5	6	7	8	9	10	11	12	13	14
1	1961/62	176	2224	121	1175	*	*	*	176	2224	121	1175	
2	1971/72	173	1256	87	798	130	166	218	303	1422	305	798	
3	1974/75	142	745	80	908	111	74	164	253	819	244	908	
4	1975/76	138	832	67	614	105	103	160	243	935	236	614	
5	1976/77	138	960	79	619	107	154	167	245	1114	246	619	
6	1977/78	146	1090	70	553	100	143	168	246	1233	238	553	
7	1978/79	130	926	73	841	111	69	167	241	995	240	841	
8	1979/80	161	1628	81	704	121	148	206	282	1776	287	704	
9	1980/81	175	1485	90	747	149	102	247	324	1587	337	747	
10	1981/82	170	1365	98	1147	136	138	266	306	1503	364	1147	
11	1982/83	212	1171	106	1186	135	131	283	347	1302	389	1186	
12	1983/84	252	1426	89	805	149	172	301	401	1598	390	805	
13	1984/85 (Provisional actual)	212	1102	80	888	134	149	275	346	1251	355	888	
14	1985/86 (Provisional)	211	1793	96	928	173	212	302	384	2005	398	928	

\* Data not available

229. State Transport Facilities. Vehicles, crafts, buildings and equipments required for state transport services are shown in the table below.

Table 102  
State Transport Facilities

(Number)

Sr. No.	Particulars	1981/82	1982/83	1983/84	1984/85 (Provi- sional actual)	1985/86 (Provi- sional)
1	2	3	4	5	6	7
1	Burma Railways Corporation					
1	Steam locomotives	141	141	141	141	140
2	Diesel locomotives	219	219	219	223	227
3	Carriages	1343	1338	1333	1333	960
4	Wagons	9028	9001	8983	8949	7234
5	Stations	468	467	478	479	479
6	Track miles	2760	2764	2774	2774	2774
2	Inland Water Transport Corporation					
1	Passenger cum cargo	173	172	174	175	174
2	Cargo barges	48	49	50	49	50
3	Tug and cargo boats	58	58	58	58	58
4	Barges	237	238	264	262	258
5	Station pontoons	77	75	71	75	74
6	Tugs	37	38	39	39	39
7	Oil barges (Dumb)	16	18	20	19	19
3	Road Transport Corporation					
1	Passenger buses	1573	1510	1485	1370	1289
2	Taxis	673	673	529	484	404
3	Haulage trucks	2770	2748	2695	2714	2699
4	Burma Airways Corporation					
1	Fokker F.27	6	5	5	6	5
2	Fokker F.28	3	3	3	3	3
3	Twin otter	7	6	5		
4	Helicopter	3	3	3	3	3