

UNION OF MYANMAR
Ministry of Labour
Department of Labour / UNFPA

HANDBOOK ON
HUMAN RESOURCES DEVELOPMENT
INDICATORS, 2001



Department of Labour



UNFPA
United Nations
Population Fund

March 2002, Yangon

FOREWORD

This Handbook on Human Resources Indicators can be said as the fifth milestone leaving four publications in its wake. Moreover the Users' Workshop was able to receive full cooperation from relevant government departments and other interested private agencies. We are proud of the fact that the workshop was very lively and the recommendations of the workshop would be translated into action as conditions permit.

The first recommendation was to improve the quality of the indicators, and the second recommendation was to increase the number of indicators. The workshop recommended to include more indicators from health, education and social sectors.

As our Minister for Labour pointed out that "the indicators must not be just a collection of data, but they must be able to indicate us which way we are heading for" and "good to formulate a suitable policy".

We shall cherish his guideline in our heart and endeavour our utmost to realise this. At the same time I'll like to welcome the advice and suggestion from all interested parties for the improvement of the Handbook on HRDI. From this page I'd like to thank the Minister for his encouragement and advice, the UNFPA for its assistance and all those involved in this venture for their co-operation.

U Soe Nyunt
Director-General
Department of Labour

Population

Population information is usually collected and published by the Department of Population (DOP). The projected total population figures by gender and by growth rate during the last eight years are presented in Table 1.

Table 1. Population and Growth Rate (As of 1st October)

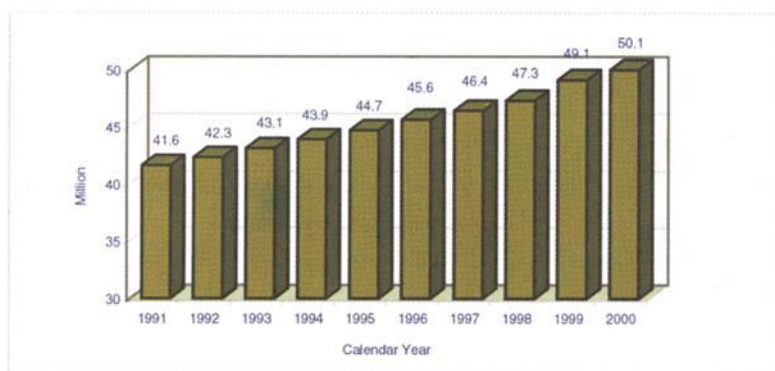
(in million)

Year	Male	Female	Total	Growth Rate(%)
1993	21.44	21.68	43.12	1.87
1994	21.83	22.09	43.92	1.87
1995	22.23	22.51	44.74	1.84
1996	22.63	22.94	45.57	1.84
1997	23.04	23.36	46.40	1.84
1998	23.46	23.79	47.25	1.84
1999	24.40	24.73	49.13	2.02
2000	24.91	25.22	50.13	2.02

Geographically, Myanmar is divided into 7 states and 7 divisions. Estimated population by gender and population density by state and division are presented in Table 2.

Table 2. Population, Area and Density by State and Division, 2000

State/Division	Male	Female	Total	Area (sq. km.)	Density (per sq. km.)
Kachin	647229	661009	1308238	89042	15
Kayah	140432	136261	276693	11732	24
Kayin	748362	763498	1511860	30383	50
Chin	233706	246244	479950	36019	13
Sagaing	2657739	2760278	5418017	94625	57
Tanintharyi	693495	694590	1388085	43345	32
Bago	2581395	2565109	5146504	39404	131
Magway	2296600	2378013	4674613	44821	104
Mandalay	3423643	3511714	6935357	37023	187
Mon	1278496	1269300	2547796	12297	207
Rakhine	1400642	1410845	2811487	36778	76
Yangon	2883229	2917553	5800782	10171	570
Shan	2457629	2446454	4904083	155801	31
Ayeyarwady	3464164	3457385	6921549	35137	197
Total	24906761	25218253	50125014	676578	74

Chart 1. Estimated Total Population of Myanmar, 1991-2000

Population distribution by age and gender together with sex ratios, and dependency ratios, as of 1st October 2000, are given in Table 3.

Table 3. Population Distribution by Age and by Sex, 2000

Age Group	Population (number)			Distribution (%)			Sex Ratio
	Male	Female	Total	Male	Female	Total	
0-4	3050087	3015772	6065859	6.1	6.0	12.1	101.14
5-9	2758963	2735135	5494098	5.5	5.5	11.0	100.87
10-14	2531352	2335887	4867239	5.1	4.6	9.7	108.37
15-19	2455908	2319758	4775666	4.9	4.6	9.5	105.87
20-24	2311651	2249134	4560785	4.6	4.5	9.1	102.78
25-29	2109692	2108398	4218090	4.2	4.2	8.4	100.06
30-34	1899856	1956848	3856704	3.8	3.9	7.7	97.09
35-39	1669342	1742305	3411647	3.3	3.5	6.8	95.81
40-44	1407446	1480032	2887478	2.8	3.0	5.8	95.10
45-49	1181311	1253517	2434828	2.4	2.5	4.9	94.24
50-54	945393	1011620	1957013	1.9	2.0	3.9	93.45
55-59	772031	844935	1616966	1.5	1.7	3.2	91.37
60-64	623281	708849	1332130	1.2	1.4	2.6	87.93
65+	1190449	1456062	2646511	2.4	2.9	5.3	81.76
Total	24906762	25218252	50125014	49.7	50.3	100.0	98.76
Dependency Ratio Total = 61.4%; Old-age DR (65+) = 8.5%; Young DR (0-14) = 52.9%							
Dependency Ratio Total = 68.7%; Old-age DR (60+) = 13.4%; Young DR (0-14) = 55.3%							

Vital Rates

In Myanmar, vital statistics such as Crude Birth Rate (CBR), Crude Death Rate (CDR), Maternal Mortality Ratio and Late Foetal Death Ratio are collected and disseminated by Central Statistical Organization (CSO) in collaboration with the Department of Health Planning (DHP). The vital rates for the union are interpolated from the urban and rural rates using appropriate weights. Crude Birth and Crude Death Rates are also presented in Chart II. Caution must be taken when comparing figures with other countries or even within the country from one year to the other, since coverage and completeness of the vital registration system vary.

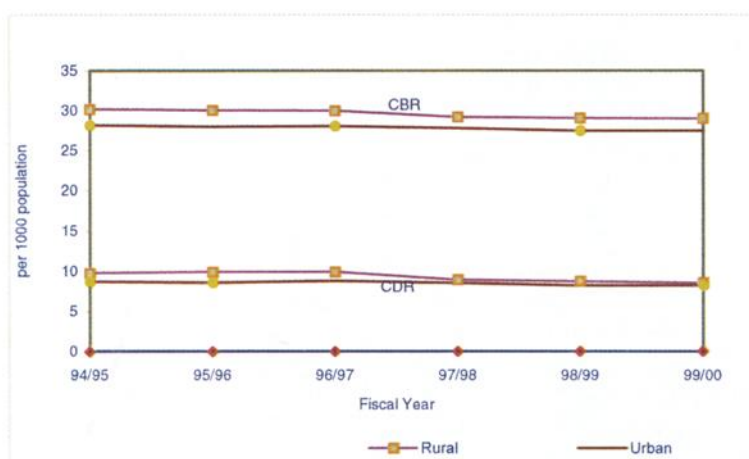
Table 4. Selected Vital Statistics (Indicator No. 2.3 & 7)

Indicator		94/95	95/96	96/97	97/98	98/99	99/00
Crude Birth Rate (CBR)	Union	29.7	29.6	29.5	28.9	-	n.a
	Rural	30.2	30.1	30.0	29.2	29.1	29.0(P)
	Urban	28.2	28.0	28.1	27.8	27.5	27.5(P)
Crude Death Rate (CDR)	Union	9.5	9.6	9.6	8.8	-	n.a
	Rural	9.8	9.9	9.9	8.9	8.7	8.5(P)
	Urban	8.7	8.6	8.8	8.5	8.2	8.2(P)
Maternal Mortality Ratio (MMR)	Union	1.6	1.6	1.7	1.5	-	*2.55
	Rural	1.8	1.8	1.9	1.7	1.8	*2.81
	Urban	1.0	1.0	1.0	1.0	1.0	*1.78

Note: These figures are obtained from the regular reporting system of vital registration and they may differ if surveys are conducted.

* National Mortality Survey, 1999, CSO.

Chart II. Crude Birth & Crude Death Rates



Health and Nutrition

There are several indicators concerning health and nutrition. The indicators are usually obtained from the Department of Health Planning (DHP) and the Department of Health (DOH). Most indicators are obtained from regular administrative statistics, however, few from ad hoc surveys. Values of some indicators are not available for a few years. Table 5 shows selected indicators with reference year. In this table, safe drinking water is defined to be water from safe sources such as pipe, public tap, tube well, protected dugwell / spring / pond and covered rain water, and available within 500 yards from the dwelling unit. (MICS 1997, DHP/UNICEF).

Table 5. Health and Nutrition Indicators

(Indicator No. 9, 10, 11, 12, 16, 18 & 19)

Indicator	overag	94/95	95/96	96/97	97/98	98/99	99/00
Percentage of Severely Malnourished Children under 5	Union	-	15.8	-	12.6	-	7.9
Contraceptive Prevalence Rate	Union	25.1	28.6	32.7*	43.7 [†]	-	49.9 [†]
Percentage of Low birth Weight babies	Union	n.a	16.0	n.a	n.a	n.a	10
Percentage Coverage of Universal Child Immunization	Union	82.0	85.0	86.0	89.0	79.9	79.9
Number of Villages per Rural Health Care Center	Union	44.3	44.3	47.1	45.3	46.9	43.8
Percentage of Population Accessible to Safe Drinking Water ^x	Union	45.5	49.1	57.0	66.0	71.5	71.5
	Rural	44.2	42.5	50.0	59.9	65.8	65.8
	Urban	49.3	68.7	78.0	87.9	89.2	89.2
Percentage of Population Accessible to Proper Sanitation ^x	Union	50.6	41.0	45.7	45.2	63.1	63.1
	Rural	44.0	36.0	39.2	39.0	56.5	56.5
	Urban	70.5	56.0	65.1	64.5	83.6	83.6

Note: * From "Fertility and Reproductive Health Survey, 1997, DOP.

x Percentages of population with access to safe drinking water and to proper sanitation are obtained from Multiple Indicator Cluster Surveys (UNICEF/ DHP).

+ From (72) Birth spacing Project Townships

A composite indicator for measuring the quality of health care services in the rural areas, namely, "percentage of rural health care centers which are adequately equipped with staff, equipment and essential drugs" is available only for the current year. Three indices on the availability of health personnel and hospital facility for the whole country are given in Table 6.

Table 6. Availability of Health Personnel and Facility

(Indicator No. 13, 14 & 15)

Indicator	94/95	95/96	96/97	97/98	98/99	99/00
Population per Physician	3521	3455	3451	3311	3352	3290
Population per Nurse	4525	4525	4614	3921	3775	3723
Population per Hospital Bed	1558	1577	1588	1602	1591	1558

Education and Training

The Ministry of Education is functionally the main sponsor of education and training, especially in the areas of basic education, teacher education and higher education. Education, especially the higher education sub-sector, is shared among 12 different ministries.

The indicators of basic education and teacher education are usually obtained from the Department of Educational Planning and Training. The higher education indicators are obtained from Myanmar Education Research Bureau and different concerned ministries. Although various types of short term vocational training are conducted by government departments and private institutions, it is difficult to get statistics on such training courses or programmes.

Indicator no. 29 "mean years of schooling" is available only from the nation-wide surveys conducted by ENVIPRO (Myanmar) Co., Ltd., a national research firm.

Table 7. Indicators on Basic Education

(Indicator No. 20, 21, 22, 23 & 24)

Indicator		95/96	96/97	97/98	98/99	99/00
Gross Enrolment Ratio by Level	P	104.6	99.7	97.6	95.2	91.2
	M	38.3	39.2	43.5	40.7	40.2
	II	20.6	20.8	22.7	30.0	32.0
Net Enrolment Ratio by Level	P	75.8	74.8	75.2	77.0	77.5
	M	32.7	34.3	37.0	37.8	38.2
	H	17.6	18.2	19.3	25.5	27.2
Transition Rate Between Levels	P to M	70.9	66.4	66.3	68.9	68.4
	M to H	90.8	91.0	89.1	91.2	94.2
Retention Rate by Level	Primary	34.5	40.4	47.5	48.5	53.6
	Middle	62.4	61.1	62.4	64.3	69.2
	High	89.4	88.1	88.0	99.1	99.1
Internal Efficiency of Primary Education	^(a) Efficiency %	50.86	49.80	75.9	73.1	75.6
	^(b) Graduate %	35.90	35.10	56.8	54.3	60.1

- Note:** P = Primary M = Middle H = High School level
- (a) Internal Efficiency Coefficient for Primary Education (per cent).
 - (b) Number of primary level graduates from the cohort of 100 new KG intakes under prevailing student flow rates.
 - (c) FY 99/00 figures are provisional.

Table 8. Number of Graduates by Specialization (Indicator No.26)

Sr.	Specialization	95/96	96/97	97/98	98/99	99/00
1.	Engineering and Architect	1620	959	1199	1028	1097
2.	Economics	1882	1063	126*	91*	897
3.	Education	1642	331	1196	1114	1146
4.	Forestry	35	39	53	46	40
5.	Veterinary	110	108	116	111	101
6.	Computer Science & Technology	210	72	256	242	191
7.	Arts and Science ^(a)	80658	14440	1735	6962	47209
8.	Foreign Languages	274	220	241	481	198
9.	Agriculture					
	Master of Agriculture(M.Agri.Sc)	-	-	7	6	16
	Agriculture (B.Agri. Sc)	213	217	-	-	235
10.	Health Personnel					
	Medical Science (MBBS)	387	78	448	404	912
	Dental Science (BDS)	48	-	48	40	52
	Paramedical Science (BPSc)	-	-	-	**18	***64
	Pharmacy (B.Pharm)	**21	-	-	**2	**43
	Nursing Science (Diploma)	1162	998	1010	940	730
	Nursing Science (BNSc)	**66	-	112	***95	75
	Community Health (B.Comm.H)	-	-	-	**14	-
	Diploma (Postgraduate)	3	8	202	124	109
	Master (M.Med.sc)	125	194	137	231	79
	Doctorate (Dr.Med.Sc)	-	-	-	-	2

* =Postgraduate only ** = Bridge Course *** =Generic Course

(a) "Arts and Science" includes arts disciplines such as history, geography, law etc. and science disciplines such as zoology, botany, chemistry, mathematics, etc.

Table 9. Persons Trained in TAV Institutions by Skill Level (Indicator No.27)

Sr.	Institution	95/96	96/97	97/98	98/99	99/00
1.	Government Technical Institute	3342	3954	3317	4177	7888
2.	Technical High School	1674	1130	2094	2080	-
3.	State Agriculture Institute	381	545	784	695	498
4.	Agricultural High School	497	498	645	-	-
5.	Industrial Training Centre	96	92	231	98	109
6.	Technical Training School	-	-	-	200	231
7.	Commercial School	284	284	749	1490	555
8.	Machinery Repair & Mainten. Sch.	144	118	180	85	96
9.	Handicraft School	1524	823	1244	556	984
10.	Myanma Lacquer-Ware Institute	10	20	39	37	49
11.	Weaving Schools	143	127	137	129	89
12.	School for Home Science	2148	1853	1900	1424	4564
13.	Cooperatives Colleges	459	340	-	511	369
14.	Forestry Training Schools	1086	918	1145	925	676

Table 10. Percentage of Female Students by Education Level (Indicator No.30)

Sr.	Education Level	95/96	96/97	97/98	98/99	99/00
1.	Primary Level	48.8	48.8	49.3	49.2	49.3
2.	Middle School Level	49.1	49.1	49.2	48.3	48.3
3.	High School Level	54.2	54.5	53.9	53.2	53.8
4.	Professional Institutions	42.3	66.7	67.0	67.0	*69.6
5.	Arts & Science Universities	60.8	62.3	62.0	62.0	62.6
6.	Government Technical Institute	24.8	27.1	27.0	36.9	47.5
7.	State Agricultural Institute	42.4	35.4	35.5	30.5	32.55

* Under Ministry of Education only

Labour Force

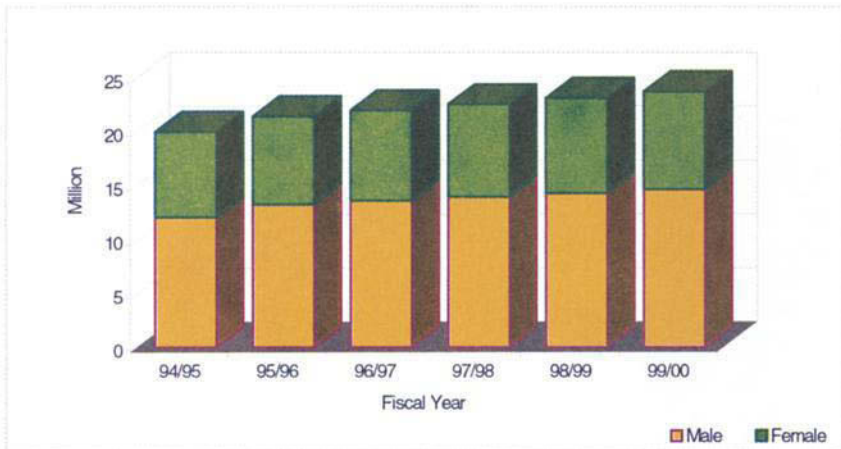
Labour force information is usually obtained from two sources: labour force surveys and population censuses. The volume of labour force and unemployment rate by gender were projected on the basis of information collected in the "1990 Labour Force Survey". With changing economic conditions and labour mobility patterns, reliability of the projected labour force and unemployment rates are in question.

Table 11. Labour Force, LFPR and Unemployment Rate

(Indicator No. 32, 33 & 34)

Indicator		94/95	95/96	96/97	97/98	98/99	99/00
Total Labour Force (million)	M	12.03	13.23	13.57	13.92	14.28	14.65
	F	7.95	8.17	8.38	8.60	8.82	9.05
	T	19.98	21.40	21.95	22.52	23.10	23.70
Labour Force Participation Rate (LFPR)	M	79.04	76.56	78.57	79.09	78.63	79.19
	F	49.10	46.00	47.18	47.64	46.67	47.01
	T	63.63	61.07	62.66	63.17	62.35	62.78
Unemployment Rate	M	3.66	3.70	3.68	3.66	3.64	3.62
	F	4.91	4.77	4.77	4.77	4.76	4.75
	T	4.15	4.11	4.10	4.08	4.07	4.05

Chart III. Labour Force by Gender



Although the total labour force can be projected, characteristics of labour force such as labour force by education level, employed population by occupation and industry and employment status could not be projected. However, the structural characteristics of labour force, the employed population by occupation and industry groups as observed in the “1990 Labour Force Survey” are presented in Table 12 and Table 13.

Table 12. Employed Population by Occupation Group (Indicator No.36)
(in thousand)

Sr.	Occupation	Number	Per Cent
1	Legislators and Senior Officials & Managers	39.2	0.4%
2	Professionals	294.1	2.8%
3	Technical and Associate Professionals	211	2.0%
4	Clerks	221.5	2.1%
5	Services Workers & Shop & Market Sales Workers	1078.6	10.1%
6	Skilled Agricultural & Fishery Workers	3503.7	32.8%
7	Craft and Related Workers	1235.5	11.6%
8	Plant and Machine Operators and Assemblers	367	3.4%
9	Elementary Occupation	3717.1	34.8%
	Total	10667.7	100.0%

Note: 1990 Labour Force Survey (DOL).

Table 13. Employed Population by Industry Group (Indicator No.36)

(in thousand)

Sr.	Industry	Number	Per Cent
1	Agriculture, Hunting, Forestry and Fishing	6024.3	56.5%
2	Mining and Quarrying	101.7	1.0%
3	Manufacturing	1212.4	11.4%
4	Electricity, Gas and Water	18.9	0.2%
5	Construction	281.1	2.6%
6	Wholesales and Retail Trade and Restaurant & Hotels	1686.7	15.8%
7	Transport, Storage and Communication	403.3	3.8%
8	Financial Institution	28.5	0.3%
9	Community, Social and Personal Services	824.4	7.7%
10	Activities not Adequately Defined	86.4	0.8%
	Total	10667.7	100.0%

Note: 1990 Labour Force Survey (DOL).

Information on establishments by ownership is obtained from labour statistics which is usually collected once in every two years through township labour offices. Similarly, the number of establishments and persons covered by social security scheme are obtained from the service statistics of Social Security Board (SSB).

Economic Indicators

Statistics on the performance of the economy are provided by Planning Department (PD). The statistics for recent years is termed either as 'provisional' or 'provisional actual'. However, the changes or the differences are minimal. The Consumer Price Index (CPI) is calculated and disseminated through its publication called the "Selected Monthly Economic Indicators" by Central Statistical Organization (CSO). GDP in constant producers' prices (real GDP) per capita GDP and other economic statistics together with CPI for Yangon are presented in Table 14. Table 15 gives total government expenditure (current and capital combined) by sectors.

Table 14. Indicators on Economic Performance

(Indicator No. 40, 41,43 & 45)

Indicator	94/95	95/96	96/97	97/98	98/99	99/00
Real GDP (K. million)	62406	66742	71042	75123	79460	88157
Growth Rate of GDP (%)	7.5	6.9	6.4	5.7	5.8	10.9
Real GDP per Capita (K)	1421	1492	1559	1619	1650	1794
Investment (K. million)	54596	82582	118313	150240	206912	255408
Export (K. million)	5405	5033	5488	6290	7700	n.a
Import (K. million)	8332	10302	11779	14258	16941	n.a
CPI ('86=100; Yangon)	603.7	735.5	882.8	1182.1	1762.2	1963.47

Chart IV. GDP Growth Rate

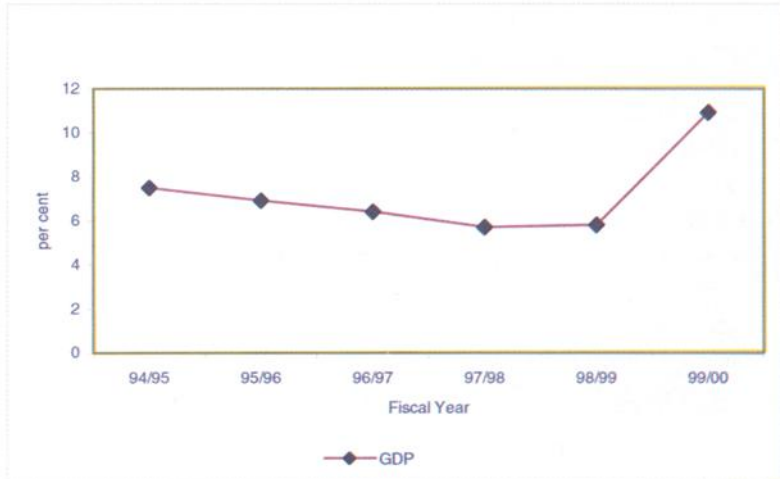


Table 15. Public Expenditure by Sector (Indicator No.44)

(million kyats)

Sr.	Sector	95/96	96/97	97/98	98/99	99/00
	Total	149546	190180	293760	388210	438435
1.	Agriculture	25626	30244	38402	46521	58829
2.	Livestock & Fishery	1758	1449	1666	2059	2693
3.	Forestry	4252	5901	7408	10119	14405
4.	Energy	4361	6614	269	516	613
5.	Mining	1777	1961	28413	29114	36508
6.	Processing & Manufacturing	9925	11828	17095	30295	33308
7.	Electric Power	3244	4532	7092	8088	19619
8.	Construction	17730	26215	42272	46031	54167
9.	Transportation	10616	12761	16495	20555	19743
10.	Communication	-	2148	2626	3153	2957
11.	Trade	21709	25847	67320	115757	107207
12.	Social	11562	17120	16804	15954	19389
	<i>Education</i>	6547	9974	9207	8525	10148
	<i>Health</i>	2306	2731	3025	3020	3881
	<i>Others</i>	2709	4415	4572	4409	5360
13.	Financial	6982	8551	10324	12736	13767
14.	Administrative Organisations	29991	35009	37574	47312	55230
15.	Reserved Fund	13	-	-	-	-

Note : Beginning from Fiscal Year 1996/97 , the Ministry of Transportation and Communication has been formed into two separate ministries.

Food Availability and Land Use

Production, import and export of various commodities are obtained from the Planning Department. The availability of food items for domestic consumption is obtained by adjusting the production figures with the figures of import and export for these items. Both Central Statistical Organization and Planning Department collect and publish information on land use: land under cultivation, reserved forests and other forests.

Table 16: Food Production and Land Use (Indicator No. 42, 46 & 47)

Indicator	94/95	95/96	96/97	97/98	98/99	99/00
<u>Food availability per head (kg.)</u>						
Rice	197.00	206.00	204.08	195.58	189.45	217.35
Edible Oil	9.50	10.27	7.10	7.71	7.99	8.75
Meat	4.87	5.45	5.89	6.38	6.52	7.71
Fish	16.31	13.59	17.29	17.90	19.19	22.68
Beans & Pulses	13.98	14.60	14.44	15.32	18.89	22.13
Cultivated land per head (acre)	0.6831	0.7115	0.6864	0.6538	0.6959	0.7446
<u>Land Use ('000 Acres)</u>						
Under Cultivation	30005	31837	30422	30336	32882	36582
Reserved & Other Forests	80057	80060	80213	80249	84903	84896

Other Indicators

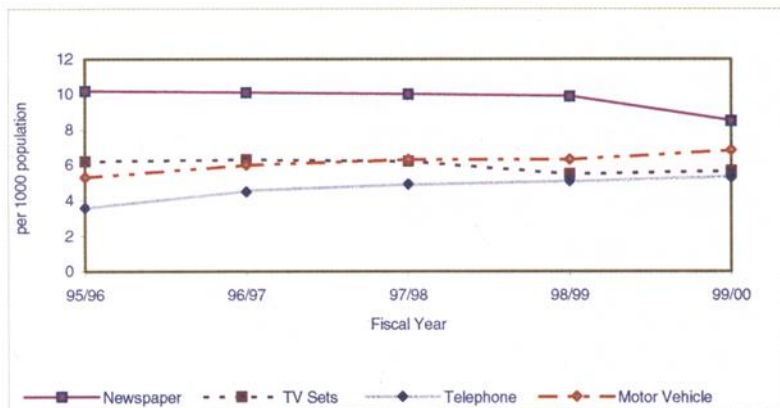
Most indicators described in this section are collected by CSO from the service statistics (administrative records) of various departments. At the moment, one important composite indicator, namely, "Number (Percentage) of Villages with School, Clinic and Electric Lighting" is not available although villages with school, with clinic and with electricity are available. However, indicators on transport, communication and information (public education) are given in Table 17.

Table 17. Transportation, Communication and Information Indicators
(Indicator No. 48, 50, 51, 52, 53 & 54)

Indicator	95/96	96/97	97/98	98/99	99/00
Number of Motor Vehicles (private) per 1,000 Population	5.3	6.0	6.3	6.3	6.8
Railway Traffic Passenger Miles (million)	2818	2725	2492	2528	2609
Railway Traffic Cargo-Ton Miles (million)	551.6	577.7	565.2	612.5	684
Daily newspapers					
Myanmar	422	425	405	373	393
English	24	24	25	24	24
Number of Radios	22643	13007	32293	35591	9380
Number of TV Sets	279251	282504	284642	260724	278161
Radios per 1,000 inhabitants	0.51	0.29	0.70	0.75	0.19
TV Sets per 1,000 inhabitants	6.24	6.31	6.24	5.51	5.67
Number of Telephones	160160	199017	225315	240673	260579
Telephones per 1,000 inhabitants	3.58	4.45	4.94	5.09	5.31

Note: Figures for radios and television sets refer to licenses issued rather than the actual numbers.

Chart V. Transport and Communication Indicators



HUMAN RESOURCES DEVELOPMENT INDICATORS

The first HRDI Handbook was published in 1997 and this is the fifth consecutive publication of such a handbook. More indicators are included in this booklet, and it is expected to include additional indicators from the public and the private sectors, in the forthcoming publications. Comments and suggestions are invited by the Department of Labour from users on this publication. Suggestions will be incorporated in the future issues.

Sr.	Indicator		94/95	95/96	96/97	97/98	98/99	99/00
1.	Total Population (Million) (DOP)	Total	43.92	44.74	45.57	46.40	47.25	49.13
		Male	21.83	22.23	22.63	23.04	23.46	24.40
		Female	22.09	22.51	22.94	23.36	23.79	24.73
2.	Crude Birth Rate (CSO)	Union	29.7	29.6	29.5	28.9		n.a.
		Rural	30.2	30.1	30.0	29.2	29.1	29.0(p)
		Urban	28.2	28.0	28.1	27.8	27.5	27.5(p)
3.	Crude Death Rate (CSO)	Union	9.5	9.6	9.6	8.8		n.a.
		Rural	9.8	9.9	9.9	8.9	8.7	8.5(p)
		Urban	8.7	8.6	8.8	8.5	8.2	8.2(p)
4.	Total Fertility Rate (CSO)	Rural	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
		Urban	3.50	3.49	3.48	3.45	3.43	3.42(p)
5.	Migration rate		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6.	Under 5 Mortality Rate (U5MR) (CSO)	Rural	n.a.	n.a.	n.a.	n.a.	n.a.	85.16*
		Urban	72.1	72.4	72.3	72.1	72.2	65.12*
7.	Maternal Mortality Ratio (MMR) (CSO)	Union	1.6	1.6	1.7	1.5		2.55*
		Rural	1.8	1.8	1.9	1.7	1.8	2.81*
		Urban	1.0	1.0	1.0	1.0	1.0	1.78*
8.	Life Expectancy at Birth (years) (CSO)	Male- Union	59.8	60.0	60.2	60.2		n.a.
		Rural	59.7	59.9	60.1	60.1	60.2	60.3
		Urban	60.2	60.4	60.6	60.6	60.8	61.0
		Female- Union	62.4	62.6	62.8	62.5		n.a.
		Rural	61.8	62.0	62.2	62.3	62.5	62.7
		Urban	64.1	64.3	64.5	64.6	64.9	65.1
9.	Percentage of Severely Malnourished Children Under 5 (DHP)	Union	-	15.8	-	12.6	-	7.9
10.	Contraceptive Prevalence Rate or Prevalence Rate (CPR; %) (DHP, DOP)	Union	25.1	28.6	**32.7	+43.7	-	+49.9
11.	Percentage of Low Birth Weight Babies (DHP)		n.a.	16.0	n.a.	n.a.	n.a.	10
12.	Percentage Coverage of Universal Child Immunization (DHP)	Union	82.0	85.0	86.0	89.0	79.9	79.9

Note: * : National Mortality Survey, 1999, CSO., P: Provisional

** : From Fertility and Reproductive Health Survey 1997, DOP

+ : From (72) Birth Spacing Project Townships

Sr.	Indicator	94/95	95/96	96/97	97/98	98/99	99/00
13.	Population per Physician (DHP)	3521	3455	3451	3311	3352	3290
14.	Population per Nursing Personnel (DHP)	4525	4525	4614	3921	3775	3723
15.	Population per Hospital Bed (DHP)	1558	1577	1588	1602	1591	1558
16.	No. of Villages per Rural Health Care Center	44.3	44.3	47.1	45.3	46.9	43.8
	No. of Villages per Rural Health Care Center and Sub-Centers (DHP)	-	-	-	-	9.31	11.0
17.	Percentage of RHC which are adequately supplied with Staff, Equipment and Essential Drugs Union (DHP)	-	-	-	-	-	70.68
18.	Percentage of Population Accessible to Safe Drinking Water (DHP)						
	Union	45.5	49.1	57.0	66.0	71.5	71.5
	Rural	44.2	42.5	50.0	59.9	65.8	65.8
	Urban	49.3	68.7	78.0	87.9	89.2	89.2
19.	Percentage of Population Accessible to Proper Sanitation (DHP)						
	Union	50.6	41.0	45.7	45.2	63.1	63.1
	Rural	44.0	36.0	39.2	39.0	56.5	56.5
	Urban	70.5	56.0	65.1	64.5	83.6	83.6
20.	Gross Enrolment Ratios by Level (DEPT, MERB)						
	P	109.6	104.6	99.7	97.6	95.2	91.2
	M	35.7	38.3	39.2	43.5	40.7	40.2
	H	20.3	20.6	20.8	22.7	30.0	32.0
21.	Net Enrolment Ratios by Level (DEPT, MERB)						
	P	73.6	75.8	74.8	75.2	77.0	77.5
	M	29.3	32.7	34.3	37.0	37.8	38.2
	H	16.7	17.6	18.2	19.3	25.5	27.2
22.	Transition Rates bet. Levels (DEPT, MERB)						
	P to M	71.9	70.9	66.4	66.3	68.9	68.4
	M to H	92.0	90.8	91.0	89.1	91.2	94.2
23.	Retention Rates by Level (DEPT)						
	Primary	37.1	34.5	40.4	47.5	48.5	53.6
	Middle	62.0	62.4	61.1	62.4	64.3	69.2
	High	87.9	89.4	88.1	88.0	99.1	99.1
24.	Internal Efficiency of Primary Education (DEPT, MERB)						
	Efficiency(%)	46.86	50.86	49.80	75.9	73.1	75.6
	Graduates(%)	31.10	35.90	35.10	56.8	54.3	60.1

Sr.	Indicator	94/95	95/96	96/97	97/98	98/99	99/00
25.	Enrolment in:						
	Basic Education						
	Primary						
	Both Sexes	5570998	5380761	5302866	4799006	4848025	4676619
	Male	2873817	2757009	2664578	2434631	2466121	2378609
	Female	2697181	2623752	2538288	2364375	2381904	2298010
	Middle						
	Both Sexes	1456750	1588823	1653394	1642232	1638189	1624861
	Male	745991	812666	845799	838035	850222	815001
	Female	710759	776157	807595	804197	787967	809860
	High						
	Both Sexes	405202	416467	424438	421582	579270	626597
	Male	186120	190984	193738	194423	276865	289308
	Female	219082	225483	230700	227159	302405	337289
	Monastic Education						
	Primary						
	Both Sexes	83414	83328	94394	94454	90328	100511
	Male	57969	57636	65759	65799	58582	60097
	Female	25445	25692	28635	28655	31746	40417
	Middle						
	Both Sexes	-	-	-	-	5232	7762
	Male	-	-	-	-	3312	4842
	Female	-	-	-	-	1920	2920
	(DEPT, DPPS)						

Note: Due to various reform measures taken by the education sector, the number of repeaters are substantially reduced since 1998.

Sr.	Indicator	94/95	95/96	96/97	97/98	98/99	99/00	
26.	Number of Engineering & Architect Graduates by Specialization	683	1620	959	1199	1028	1097	
	Economics	900	1882	1063	126*	91*	897	
	Education	702	1642	331	1196	1114	1146	
	Forestry	34	35	39	53	46	40	
	Veterinary	216	110	108	116	111	101	
	Computer Science & Technology	54	210	72	256	242	191	
	Arts & Science	19527	80658	14440	1735	6962	47209	
	Foreign Languages	46	274	220	241	481	198	
	Agriculture	194	213	217	7	6	251	
	Master of Agriculture(M.Agri.Sc)	6	-	-	7	6	16	
	Agriculture(B.Agri.Sc)	188	213	217	-	-	235	
	Health Personnel	1262	1747	1807	1796	1877	2066	
	Medical Sc(MBBS)	481	387	78	448	404	912	
	Dental Sc(BDS)	52	48	-	48	40	52	
	Paramedical Sc(BPSc)	**22	-	-	-	**18	***64	
	Pharmacy(B.Pharm)	-	**21	-	-	**2	**43	
	Nursing Sc (Diploma)	862	1162	998	1010	940	730	
	Nursing Sc (BNSc)	-	**66	-	112	***95	75	
	Community Health (B.Comm.H)	-	-	-	-	**14	-	
	Diploma (Postgraduates)	7	3	8	202	124	109	
Master (M.Med.Sc.)	285	125	194	137	231	79		
Doctorate (Dr. Med.Sc)	-	-	-	-	-	2		
<i>(DLF, MERB, DAP, DMS, FD, DAST)</i>								
27.	Number of Persons Trained in Technical, Agricultural and Vocational Institutions by Skill Level	*GTI	-	3342	3954	3317	4177	7888
	*THS	1818	1674	1130	2094	2080	-	
	*SAI	228	381	545	784	695	498	
	*AHS	568	497	498	645	-	-	
	*ITC	96	96	92	231	98	109	
	*TTS	-	-	-	-	200	231	
	Commercial Sch.	269	284	284	749	1490	555	
	Machinery Repair & Maint. Sch.	121	144	118	180	85	96	
	Handicraft Sch.	1431	1524	823	1244	556	984	
	Myanma Lacquer-Ware Institute	9	10	20	39	37	49	
	Weaving Schs.	155	143	127	137	129	89	
	School for Home Science	2608	2148	1853	1900	1424	4564	
	Cooperative Colleges	-	459	340	-	511	369	
	Forestry Training Schools	1184	1086	918	1145	925	676	
	<i>(MERB, DOC, DTVE, DSW, DAP, DCI, FD, DMIP)</i>							

Note: Intake of AHS students was stopped in 1998/99 and all AHS were transferred to other departments.

*GTI = Government Technical Institute

*THS = Technical High School

*SAI = State Agriculture Institute

*AHS = Agriculture High School

*ITC = Industrial Training Centre

*TTS = Technical Training School

* = Postgraduate only

** = Bridge Course

*** = Generic Course

Sr.	Indicator		94/95	95/96	96/97	97/98	98/99	99/00
28.	Adult Literacy Rate	Union	84.5	85.8	87.1	88.4	89.7	91.0
		Male	87.5	88.2	89.0	89.8	90.6	91.4
		Female	81.5	83.3	85.1	86.9	88.7	90.6
	<i>(DEPT)</i>							
29.	Mean Years of Schooling per Person Aged 5 & Over	Union	5.4	5.8	6.2	6.3	6.5	6.7
	<i>(ENVIPRO)</i>							
30.	Percentage of Female Students by Level	Primary	48.4	48.8	48.8	49.3	49.2	49.3
		Middle	49.0	49.1	49.1	49.2	48.3	48.3
		High	54.1	54.2	54.5	53.9	53.2	53.8
		Professional Inst.	39.8	42.3	66.7	67.0	67.0	*69.6
		Arts & Science	63.8	60.8	62.3	62.0	62.0	62.6
		GTI	24.3	24.8	27.1	27.0	36.9	47.5
	<i>(DEPT, MERB, DAP)</i>							
		SAI	47.8	42.4	35.4	35.5	30.5	32.55
31.	Percentage of Senior Official Positions Held by Women in Public Sector		13.14	13.10	13.88	n.a	n.a	n.a
	<i>(CSO)</i>							
32.	Total Labour Force (million)	Both Sexes	19.98	21.40	21.95	22.52	23.10	23.70
		Male	12.03	13.23	13.57	13.92	14.28	14.65
		Female	7.95	8.17	8.38	8.60	8.82	9.05
	<i>(DOL)</i>							
33.	Labour Force Participation Rate (percent)	Both Sexes	63.63	61.07	62.66	63.17	62.35	62.78
		Male	79.04	76.56	78.57	79.09	78.63	79.19
		Female	49.10	46.00	47.18	47.64	46.67	47.01
	<i>(DOL)</i>							
34.	Unemployment Rate (per cent)	Both Sexes	4.15	4.11	4.10	4.08	4.07	4.05
		Male	3.66	3.70	3.68	3.66	3.64	3.62
		Female	4.91	4.77	4.77	4.77	4.76	4.75
	<i>(DOL)</i>							
35.	Labour Force by Ed. Level (per cent)	Illiterate				9.99	9.99	9.99
		Literate				47.6	47.6	47.6
		Primary				27.3	27.3	27.3
		Secondary				12.4	12.4	12.4
		Higher Ed.				2.7	2.7	2.7
	<i>(DOL)</i>							
			LFS 1990 Figures Reproduced					

* Under Ministry of Education only

Sr.	Indicator	94/95	95/96	96/97	97/98	98/99	99/00
36.	Percentage Distribution of Employed Population <i>by Occupation Group</i>				100.0	100.0	100.0
	Legislators, Senior Off. & Managers				0.4	0.4	0.4
	Professionals				2.8	2.8	2.8
	Technical & Associate Professionals				2.0	2.0	2.0
	Clerks				2.1	2.1	2.1
	Services, Shop, etc. sales workers				10.1	10.1	10.1
	Skilled Agri. & Fishery Workers				32.8	32.8	32.8
	Craft and Related Workers				11.6	11.6	11.6
	Machine Operators and Assemblers				3.4	3.4	3.4
	Elementary Occupation				34.8	34.8	34.8
	<i>by Industry Group</i> →	LFS 1990 Figures Reproduced			100.0	100.0	100.0
	Agri. , Hunting, Forestry & Fishing				56.5	56.5	56.5
	Mining and Quarrying				1.0	1.0	1.0
	Manufacturing				11.4	11.4	11.4
	Electricity, Gas and Water				0.2	0.2	0.2
	Construction				2.6	2.6	2.6
	Trade, Restaurants & Hotels				15.8	15.8	15.8
	Transport, Storage & Communication				3.8	3.8	3.8
	Financial Institution				0.3	0.3	0.3
	Social and Personal Services				7.7	7.7	7.7
	Activities not Adequately Defined (DOL)				0.8	0.8	0.8
37.	Percentage Distribution of Employed Population <i>by Employment Status</i> (DOL)				1.5	1.5	1.5
	Employer				35.3	35.3	35.3
	Own Acc. Worker				30.6	30.6	30.6
	Employee				32.6	32.6	32.6
	Unpaid Family Worker				0.1	0.1	0.1
	Others						
38.	No. of Establishments <i>by Ownership</i> (DOL)	22677		30874		20652	24229
	Public	7848		3261		2435	2223
	Cooperative	48048		67036		84760	98410
	Private	297		2098		1129	888
	Joint Venture						
	Pct. Change in Establishments By Ownership						
	Public	13.2%		36.2%		-33.10%	17.32%
	Cooperative	24.3%		-58.4%		-25.32%	-8.71%
	Private	1.4%		39.5%		26.43%	16.01%
	Joint Venture	12.1%		606.4%		-46.18%	-21.35%

Note: The values of indicators no. 35, 36 and 37 are reproduced from Labour Force Survey, 1990. In the absence of Population Censuses, large scale Labour Force Surveys need to be conducted in order to reflect the changing pattern of employment and the quality of the labour force. Information on the number of establishments by ownership (ie. Indicator 38) is available once in two years from establishment surveys conducted by the Department of Labour. Now, the survey is planned to be conducted every year.

	Indicator	94/95	95/96	96/97	97/98	98/99	99/00
39.	Coverage of Social Security Scheme for Employed Persons (SSB)	317634	340320	364834	387253	414289	451007
	Both Sexes Male Female	231663 85971	241624 98696	244474 120360	253141 134112	259880 154409	268651 182356
40.	Real GDP (K. million)	62406	66742	71042	75123	79460	88157
	Growth Rate of GDP (%) (PD)	7.5	6.9	6.4	5.7	5.8	10.9
41.	Real GDP per Capita (Kyats) (PD)	1421	1492	1559	1619	1650	1794
42.	Food Availability per Head(kg)	197.00	205.78	204.08	195.58	189.45	217.35
	Rice	9.50	10.27	7.10	7.71	7.99	8.75
	Edible Oil	4.87	5.45	5.89	6.38	6.52	7.71
	Meat	16.31	13.59	17.29	17.90	19.19	22.68
	Fish	13.98	14.58	14.44	15.32	18.89	22.13
(PD)	Beans & Pulses						
43.	Investment (K. million)	54596	82582	118313	150240	206912	255408
	Export (K. million)	5405	5033	5488	6290	7700	n.a
	Import (K. million)	8332	10302	11779	14258	16941	n.a
	(PD)						
44.	Public Expenditure by Sector (K. million)	122490	149546	190180	293760	388210	438435
	Agriculture	16973	25626	30244	38402	46521	58829
	Livestock & Fishery	1541	1758	1449	1666	2059	2693
	Forestry	3236	4252	5901	7408	10119	14405
	Energy	3312	4361	6614	269	516	613
	Mining	1723	1777	1961	28413	29114	36508
	Processing & Manufacturing	7008	9925	11828	17095	30295	33308
	Electric Power	2200	3244	4532	7092	8088	19619
	Construction	14224	17730	26215	42272	46031	54167
	Transportation	6871	10616	12761	16495	20555	19743
	Communication	-	-	2148	2626	3153	2957
	Trade	27586	21709	25847	67320	115757	107207
	Social	9411	11562	17120	16804	15954	19389
	Education	5640	6547	9974	9207	8525	10148
	Health	1846	2306	2731	3025	3020	3881
	Others	1925	2709	4415	4572	4409	5360
	Financial	5191	6982	8551	10324	12736	13767
Administrative Organizations	23136	29991	35009	37574	47312	55230	
(PD)	Reserve Fund	78	13	-	-	-	-
45.	Consumer Price Index (CSO)	603.7	735.5	882.8	1182.1	1762.2	1963.47
	Yangon (1986=100)						
46.	Cultivated Land per Head (Acres) (CSO)	0.6831	0.7115	0.6864	0.6538	0.6959	0.7446

Sr.	Indicator	94/95	95/96	96/97	97/98	98/99	99/00
47.	Land Use('000 acre) Gross Area Sown	30005	31837	30422	30336	32882	36582
	(CSO,FD)Reserved& Other Forest	80057	80060	80213	80249	84903	84896
48.	Number of Motor Vehicles (Private) per 1,000 Population	5.0	5.3	6.0	6.3	6.3	6.8
	Number of Motor Vehicles (Total) Per 1,000 Population (RTA)	6.3	6.7	7.8	8.3	8.3	8.9
49.	Percentage distribution of Energy Consumption InYangon City by Type #						
	Fire-Wood		14.60		9.37		
	Charcoal		40.39		45.69		
	Kerosene		1.76		0.82		
	Electricity		26.54		23.97		
	Gas		6.61		0.90		
50.	Railway Traffic Passenger Miles (million) (MR)	2904	2818	2725	2492	2528	2609
51.	Railway Traffic Cargo-Ton Miles (million) (MR)	585.8	551.6	577.7	565.2	612.5	684
52.	Daily Newspaper:No.in Myanmar Circulation('000) English	421	422	425	405	373	393
	(CSO)	24	24	24	25	24	24
53.	Number of Radios	71271	22643	13007	32293	35591	9380
	Number of TV Sets	223886	279251	282504	284642	260724	278161
	Radios per 1,000 Inhabitants	1.62	0.51	0.29	0.70	0.75	0.19
	TV Sets per 1,000 Inhabitants (MPT)	5.10	6.24	6.31	6.24	5.51	5.67
54.	Number of Telephones	140428	160160	199017	225315	240673	260579
	Telephones per 1,000 Inhabitants (MPT)	3.20	3.58	4.45	4.94	5.09	5.31
55.	Total Number of Villages*	65238	65238	65238	65238	65212	65205
	Villages with Number of School RHC or Sub-RHC	32492	32568	32603	34557	34574	34627
	Electric Lighting	6934	6944	6974	6980	6990	6729
	All 3 amenities	971	1015	1051	1075	1089	1093
	Percentage of Villages with School RHC or Sub-RHC	n.a	n.a	n.a	n.a	n.a	n.a
	Electric Lighting	49.8	49.9	50.0	53.0	53.0	53.1
	All 3 amenities	10.6	10.6	10.7	10.7	10.7	11.3
	(GAD,DHP,MERB,MEPE,DEPT)	1.5	1.5	1.6	1.6	1.6	1.6
	n.a	n.a	n.a	n.a	n.a	n.a	

Note: # Energy consumption by fuel type (indicator 49) is available once in every two years.

* Villages upgraded to Small Towns

Note: Acronyms for data sources are presented in *italics* below:

- (1) CSO = *Central Statistical Organization*
- (2) DAP = *Department of Agricultural Planning*
- (3) DAST = *Department of Advanced Science and Technology*
- (4) DCI = *Department of Cottage Industries*
- (5) DEPT = *Department of Education Planning and Training*
- (6) DHP = *Department of Health Planning*
- (7) DLF = *Directorate of Livestock and Fisheries*
- (8) DMS = *Department of Medical Science*
- (9) DMIP = *Directorate of Myanma Industrial Planning*
- (10) DOC = *Department of Cooperative*
- (11) DOL = *Department of Labour*
- (12) DOP = *Department of Population*
- (13) DPPS = *Department for the Promotion and Propagation of the Sasana*
- (14) FD = *Forest Department*
- (15) D SW = *Department of Social Welfares*
- (16) DTVE = *Department of Technical and Vocational Education*
- (17) GAD = *General Administration Department*
- (18) MEPE = *Myanmar Electric Power Enterprise*
- (19) MERB = *Myanmar Education Research Bureau*
- (20) MPT = *Myanma Posts and Telecommunications*
- (21) MR = *Myanma Railways*
- (22) PD = *Planning Department*
- (23) RTA = *Department of Road Transport Administration*
- (24) SSB = *Social Security Board*

Additional HRD Indicators for Public Sector

Sr.	Indicator	95/96	96/97	97/98	98/99	99/00
1.	Dependency Ratio Total	62.5	62.3	61.9	61.7	61.4
	Old-age DR (65+)	8.1	8.2	8.3	8.4	8.5
	Young DR (0-14)	54.4	54.0	53.6	53.3	52.9
	Dependency Ratio Total	69.6	69.4	69.1	68.9	68.7
	Old-age DR (60+)	12.9	13.0	13.1	13.2	13.4
	Young DR (0-14)	56.8	56.4	56.0	55.6	55.3

Single Leading Causes of Mortality by Trend (1995-1999)

Sr.	1995	%	1996	%	1997	%	1998	%	1999	%
1.	Malaria	20.2	Malaria	19.0	Malaria	16.2	Malaria	18.5	Malaria	15.6
2.	Ill-defined intestinal infection	5.7	Diarrhoea and gastroenteritis of presumed infectious origin	6.0	Diarrhoea and gastroenteritis of presumed infectious origin	6.7	Other diseases of respiratory system	6.0	Pulmonary Tuberculosis	6.3
3.	Other diseases of respiratory system	5.3	Pneumonia	4.6	Pulmonary Tuberculosis	5.7	Pulmonary Tuberculosis	5.7	Stroke, not Specified as hemorrhage or infarction	4.9
4.	Other diseases of pulmonary circulation and other forms of heart diseases	5.3	Pulmonary Tuberculosis	4.5	Other diseases of respiratory system	5.3	Other injuries of specified, unspecified and multiple body regions	4.8	Other diseases of respiratory system	4.7
5.	Pulmonary Tuberculosis	5.2	Other diseases of respiratory system	4.4	Other injuries of specified, unspecified and multiple body regions	4.1	Stroke, not specified as hemorrhage or infarction	4.6	Other injuries of specified, unspecified and multiple body regions	4.0

Source - Health Management Information System, DHP.

Single Leading Causes of Morbidity by Trend (1995-1999)

Sr	1995	%	1996	%	1997	%	1998	%	1999	%
1.	Malaria	15.9	Malaria	15.1	Malaria	14.5	Malaria	15.8	Malaria	12.4
2.	Single spontaneous delivery	9.3	Single spontaneous delivery	9.6	Single spontaneous delivery	10.2	Single spontaneous delivery	9.8	Single spontaneous delivery	10.5
3.	Diarrhoea and gastroenteritis of presumed infectious origin	7.8	Other injuries of specified, unspecified and multiple body regions	7.8	Other injuries of specified, unspecified and multiple body regions	8.9	Other injuries of specified, unspecified and multiple body regions	8.7	Other injuries of specified, unspecified and multiple body regions	9.4
4.	Other injuries of specified, unspecified and multiple body regions	6.3	Diarrhoea and gastroenteritis of presumed infectious origin	7.7	Diarrhoea and gastroenteritis of presumed infectious origin	8.4	Diarrhoea and gastroenteritis of presumed infectious origin	5.0	Diarrhoea and gastroenteritis of presumed infectious origin	4.5
5.	Other diseases of respiratory system	2.7	Other pregnancies with abortive outcome	4.5	Other pregnancies with abortive outcome	5.0	Other pregnancies with abortive outcome	4.8	Other pregnancies with abortive outcome	4.4

Source - Health Management Information System, DHP.

DEFINITIONS OF HUMAN RESOURCE DEVELOPMENT INDICATORS**C O N T E N T S**

1. Population by age and gender
2. Crude Birth Rate
3. Crude Death Rate
4. Total Fertility Rate
5. Migration
6. Under 5 Mortality Rate (U5MR)
7. Maternal Mortality Ratio (MMR)
8. Life Expectancy at birth
9. Percentage of Moderate to Severely Malnourished Children under 5
10. Contraceptive Prevalence Rate or Prevalence Rate (CPR)
11. Percentage of Low Birth Weight Babies
12. Percentage Coverage of Universal Child Immunization
13. Population per Physician
14. Population per Nursing Personnel
15. Population per Hospital Bed
16. Number of Villages per Rural Health Centre and Sub-Centre
17. Percentage of RHC which are Adequately Supplied with Staff, Equipment and Essential Drugs
18. Percentage of Population Accessible to Safe and Convenient Drinking Water
19. Percentage of Population Accessible to Proper Sanitation
20. Gross Enrolment Ratios by Level
21. Net Enrolment Ratios by Level
22. Transition Rates between Levels
23. Retention Rate by Level
24. Internal Efficiency of Primary Education
25. Enrolment in Basic and Monastic Education
26. Number of Graduates by Specialization

27. Number of Persons Trained in Technical, Agricultural and Vocational Institutions by Skill Level
28. Adult Literacy Rate
29. Mean Years of Schooling per Person Aged 5 and Over
30. Percentage of Female Student by Level
31. Percentage of Senior Official Positions Held by Women in Public Sector
32. Total Labour Force
33. Labour Force Participation Rate (LFPR)
34. Unemployment Rate
35. Labour Force by Education Level
36. Employed Population by Occupation and Industry Group
37. Employed Population by Employment Status
38. Establishments and their Growth by Ownership
39. Coverage of Social Security Scheme for Registered Employed Persons
40. Real GDP and Growth Rate of GDP
41. Real GDP per Head and Growth Rate
42. Food Availability per Head
43. Investment, Export and Import
44. Public Expenditure by Sector
45. Consumers' Price Index
46. Cultivated Land per Head
47. Land Use (under Cultivation, Forest and Others)
48. Number of Motor Vehicles per 1,000 Population
49. Energy Consumption by Type
50. Railway Traffic Passenger Miles
51. Railway Traffic Cargo-Ton Miles
52. Daily Newspaper: Number of Circulation
53. Number of Radios and TV Sets, and Radios and TV Sets per 1,000 Inhabitants
54. Number of Telephones and Telephones per 1,000 Inhabitants
55. Number (Percentage) of Villages with School, Clinic and Electric Lighting

**BRIEF DEFINITIONS OF
HUMAN RESOURCES DEVELOPMENT INDICATORS**

1. Population by age and gender

Total population, from census, is comprised of all persons permanently residing in the Union of Myanmar at the enumeration point of time including inmates of institution, moving population, foreigners, armed services personnel and those who are temporarily abroad; but excludes foreign diplomatic personnel and their families (DOP, 1986).

Censuses provide population at the national and sub-national levels by age groups and gender. For non-census years, population by age and gender is estimated based on the information available from censuses and surveys.

Sex-ratio is the number of males per 100 females in the reference age group.

Dependency ratio is the number of dependent population per 100 working-age population.

2. Crude Birth Rate

The crude birth rate per 1,000 population represents the ratio of the total number of live births reported in a calendar year to the estimated mid-year population.

3. Crude Death Rate

The crude death rate per 1,000 population represents the ratio of the total number of deaths reported in a calendar year to the estimated mid-year population.

4. Total Fertility Rate

The total fertility rate may be interpreted as the total number of live births that would occur to a woman, if she were to go through her reproductive years, bearing children at the age specific fertility rates prevailing in a given year. In other words, it is the number of children a woman would have if she experienced the prevailing age specific fertility rates of all women in a given year.

It is a summary index of period fertility, that is the fertility of a particular year or period of a given population.

5. Migration

Migration is a form of geographic or spatial mobility involving a change of usual place of residence between clearly defined geographic units; or it can be defined as the movement of people across a specified boundary for the purpose of establishing a new permanent residence.

There are two types of migration namely international migration (migration between countries) and internal migration (migration within a country).

Immigration (in-migration) Rate is the number of immigrants arriving at a destination per 1,000 population at that destination in a given year.

Emigration (out-migration) Rate is the number of emigrants departing or moving out from an area of origin per 1,000 population at that area of origin in a given year.

Net Migration Rate is the net effect of immigration and emigration as an increase or decrease per 1,000 population of the area in a given year.

Usually place of birth and place of residence at a fixed past date are included in the questionnaires in censuses or surveys to get the information on migration. The difference in the place of birth and current place of residence gives the life-time migration. Question on previous place of residence at a fixed date generates information on migration since that specified date.

Questions on place of birth, place of residence 5 years ago and duration of residence at the current place are included in the 1991 Population Changes and Fertility Survey (PCFS). It gives us the direction of the streams of migration from one state/division to another and the rate of migration.

6. Under 5 Mortality Rate (U5MR)

Under 5 Mortality Rate is the probability of dying between birth and exact age five. It can also be expressed as the number of deaths to children aged (0-4) years in a given year per 1,000 live births in the same year. Another variant uses the denominator as 1,000 mid-year population of children aged (0-4). This indicator reflects the socio-economic development conditions of an area or sub-group.

In Myanmar, the first definition is officially used, however, U5MR could also be computed using the second definition, if necessary.

7. **Maternal Mortality Ratio (MMR)**

Maternal Mortality Ratio (MMR) is the number of maternal deaths, i) due to pregnancy related causes and not incidental causes (malaria, accidents, suicides, ii) during pregnancy and up to and including 42 days from the termination of the pregnancy irrespective of the site and duration of pregnancy per 1,000 (or 100,000) live births in a given year.

This rate reflects nutritional status, reproductive health awareness of mothers as well as impacts of social environment and maternal health care programme and services.

8. **Life Expectancy at Birth**

Life expectancy is the average number of additional years a person can expect to live, based on the age specific death rates for a given year.

This measure is influenced significantly by gender, and subgroup, and thus is often computed separately. Life expectancy at birth is the most cited measure.

9. **Percentage of Severely Malnourished Children under 5**

The children under 5 years with the body weight lying in red zone (3 standard deviations under the average normal weight for age) are assumed as severely malnourished children.

Thus, this indicator is computed as the ratio of children under 5 years of age who suffered from severely malnourished to the total number of children under 5 years of age in a given year.

10. **Contraceptive Prevalence Rate (CPR)**

Percentage of currently married women of childbearing age (15-49) who are using, or whose husbands are using any form of contraception with the intention of spacing and/or limiting births. It covers both modern (more effective) and traditional (less effective) methods.

11. **Percentage of Low Birth Weight Babies**

Number of live births having body weight less than 2,500 grams per 100 live births.

12. Percentage Coverage of Universal Child Immunization

Number of infants under 1 covered by universal child immunization per 100 infants under 1 year of age in a given year. Universal child immunization programme includes one dose of BCG at birth, 3 doses of polio and DPT at the baby's age of 1.5, 2.5 and 3.5 months, and one dose of measles at the baby's age of 9 months for every child.

13. Population per Physician

Number of population per physician in a given year. Physicians are those in the medical sector trained as health professionals.

14. Population per Nursing Personnel

Number of population per nursing personnel in a given year. The nursing personnel include all nurses. (Lady Health Visitors and Midwives are not included).

15. Population per Hospital Bed

Number of population per hospital bed in a given year.

16. (a) Number of Villages per Rural Health Centre

Average number of villages served by a rural health centre, both in preventive and curative aspects in a given year.

(b) Number of Villages per Rural Health Center and Sub-center

Average number of villages served by a clinic, both in preventive and curative aspects in a given year. The rural health centre includes both main centre (RHC) and sub-centre (Sub-RHC)

17. **Percentage of RHC which are Adequately Supplied with Staff, Equipment and Essential Drugs**

Percentage of rural health centres which are adequately supplied with staff, equipment and essential drugs in a given year. The sanctioned staff in a rural health centre (RHC) at present includes one health assistant (HA), one lady health visitor (LHV), five midwives (MW; one in main centre and four in the sub-centres), one public health supervisor II (PHS II), and one watchman. Supplies and equipment in a RHC include RHC-kit, HA-kit, LHV-kit and sufficient number of MW-kits.

18. **Percentage of Population Accessible to Safe Drinking Water**

Safe drinking water is defined to be the water obtained from the safe sources such as pipe, public tap, tube well, protected dug well/spring/pond and covered rain water, and available within 500 yards. Therefore, this indicator can be calculated as the number of persons obtaining safe-drinking water in an area divided by the total population living in the same area for the given period of time.

19. **Percentage of Population Accessible to Proper Sanitation**

Those who are using the septic-tank latrine or fly proof pit latrine can be defined as those accessible to proper sanitation. Therefore, this indicator can be calculated as the number of persons using proper sanitary facilities in an area divided by the total population living in the same area for the given period of time.

20. **Gross Enrolment Ratios by Level**

Enrolment by level as percentage of population of the corresponding age group (5-9 for primary level, 10-13 for middle school (lower secondary) level and 14-15 for high school (upper secondary) level.

21. **Net Enrolment Ratios by Level**

Enrolment of the respective age group by level as percentage of population of the corresponding age group (5-9) for primary level, (10-13) for middle school (lower secondary) level and (14-15) for high school (upper secondary) level.

22. **Transition Rates between Levels**

It is the percentage (ratio) of successful candidates (graduates) of a certain level who continue to the initial grade of the next higher level and successful candidates of final grade of that certain level.

23. **Retention Rate by Level**

It is the percentage (ratio) of enrolment in last grade of a certain level and enrolment in first grade X years ago (where X is the duration of certain level minus one).

24. **Internal Efficiency of Primary Education**

Efficiency is defined as the optimal relationship between inputs and outputs of a system. In an education system, the input is measured by the student-years (one student studying at school for a year) and the graduates are the outputs. Therefore, the internal efficiency of primary education can be defined as the ratio of ideal number of student-years and the actual number of student-years spent on an average. For example, in an education system with a 5-year cycle of primary school, if a student spends only 5 years to be graduated on average, then, it is a totally efficient system. If a student spends 6 years to be graduated on average, the internal efficiency of the system is $5/6$ or 83.3 per cent

25. **Enrolment in Basic and Monastic Education**

Enrolment is the collective term for the number of children who are attending school.

Basic Education Enrolment includes enrolment from public schools, branch schools and affiliated schools, run by the government and community.

Monastic Education Enrolment includes only the enrolment from monastic schools run by the Buddhist Monasteries.

26. **Number of Graduates by Specialization**

Number of Arts, Science, Medicine, Engineering, Dental Medicine, Education, Economic, etc. graduates who have successfully completed from the Universities and Institutes during the reporting period.

27. **Number of Persons Trained in Technical, Agricultural and Vocational Institutions by Skill Level**

Number of graduates who have successfully completed from these respective technical, agricultural and vocational institutions (diploma level) and schools, by skill level of trades during the reporting period.

28. **Adult Literacy Rate**

Literate (people with basic reading, writing and numeracy skills) as percentage of population at corresponding age group of aged 15 years and above.

29. **Mean Years of Schooling per Person Aged 5 and Over**

Average number of years that a person spends in education. In general, the education level is directly proportional to number of schooling years; therefore, this indicator like literacy rate, can be used for analyzing the education level of the population.

30. **Percentage of Female Student by Level**

Number of female students by level, expressed as the percentage of total number of students by respective level during the reporting period.

31. **Percentage of Senior Official Positions Held by Women in Public Sector**

Number of women senior officials in public sector, expressed as a percentage of total number of senior officials in public sector during the reporting period. Senior official positions are defined to be those designations equivalent to assistant director or higher in the public sector.

32. Total Labour Force

The labour force framework classifies, at a given moment of time, the population aged 10 and over for measuring the economically active population into three categories: employed, unemployed and not in the labour force (or the currently inactive population). Persons below 10 years of age are added to the third category (not in the labour force).

The size of the labour force is basically dependent upon the size of the population and its age distribution which in turn depends on the demographic factors of the population. The size of the labour force therefore depends not only on population growth but also on the prevailing socio-economic conditions of the population.

Labour force is used interchangeably with the *economically active population*. The economically active population is generally defined as that part of the population which supplies and which is willing to supply labour for production of economic goods and services.

The economically inactive persons are those who are neither working nor looking for work such as those engaged in domestic duties in their own houses, students, the old or very young, the disabled and the persons voluntarily engaged in charitable and religious services.

33. Labour Force Participation Rate (LFPR)

Age, marital status and education are the primary determinants of individual labour force participation. These demographic and social characteristics are expected to play a major role even at the aggregate or macro level. Age structure affects the aggregate rate of labour force participation by different age groups. The age and gender specific labour force participation rates are calculated on the basis of two different concepts; (i) one which treats all the unpaid family workers as employed, and (ii) the other which does not.

The rate of labour force participation represents the number of people in the labour force aged 10 and above per 100 population of the same age group. The labour force framework classifies, at a given period of time, the entire population aged 10 and over into three categories; employed, unemployed and not in the labour force. The former two categories represent the economically active, while the latter represents the economically inactive.

34. Unemployment Rate

Unemployment rate is expressed as the ratio of unemployed persons (job seekers) and the labour force.

35. Labour Force by Education Level

The employed population by age and gender includes:

- (a) “Employer” - the person who either operates his own business or is engaged independently in a profession or trade for profit and employs, in connection with his business, one or more workers other than unpaid family workers or apprentices.
- (b) “Own account worker” - the person who operates his business alone or is engaged independently in trade or profession for fees or profit and who has no employees in his business other than unpaid family workers. A worker on own account is also referred to as self-employed person;
- (c) “Paid worker” - the person who works for public or private employer and receives remuneration for his work in money wages, piece rates or in kind. A paid worker is also referred to as an employee;
- (d) “Unpaid family worker”- the person who works without pay of any kind in a business operated by any member of the household excluding housekeeping.
- (e) “Unemployed” - persons who are able and willing to work but who are not at work during the period of inquiry and who are actively looking for work. Usually, education level of the labour force (both employed and unemployed) is defined by one of the following two types:

(a) Complete List

1. No Education
2. Standard 1-4
3. Standard 5-8
4. Standard 9-10
5. Monastic Education
6. Under Graduate
7. Diploma
8. Graduate
9. Post Graduate
10. Certificate
11. Others

(b) Condensed List

1. Illiterate
2. Literate, no formal education
3. Primary
4. Secondary (middle& high)
5. Higher education

36. Employed Population by Occupation and Industry Group

The type of economic activity that an employed person performs can be looked at from the point of view of:

- (a) the industry or the activity of the establishment in which an economically active person works during the time reference period;
- (b) the occupation or the kind of work done during the time reference period, and
- (c) the status as employee, own account worker or unpaid family worker.

The major groups of occupational classification usually used in Myanmar are:

1. Legislation and Senior Officials and Managers
2. Professionals
3. Technical and Associate Professionals
4. Clerks
5. Services Workers & Shop and Market Sales Workers
6. Skilled Agricultural & Fishery Workers
7. Craft and Related Workers
8. Plant and Machine Operators and Assemblers
9. Elementary Occupations.

The employed population is primarily distributed by the following major industrial groupings.

1. Agriculture, Hunting, Forestry and Fishing
2. Mining and Quarrying
3. Manufacturing
4. Construction
5. Electricity, Gas, Water and Sanitary Services
6. Wholesale & Retail Trade, Restaurant and Hotel
7. Transport, Storage and Communication
8. Social Services
9. Activities not adequately defined.

They were further regrouped into three broad industrial sectors, viz., primary, secondary and tertiary. Each of these sectors was made up of the following industries –

Sector Major Groupings

- | | |
|--------------|--|
| 1. Primary | Agriculture, Hunting, Forestry & Fishing. |
| 2. Secondary | Mining & Quarrying, Manufacturing, Construction. |
| 3. Tertiary | Electricity, Gas, Water, Sanitary Services, Wholesale, Retail Trade, Restaurants and Hotels, Transport, Storage and Communication, Social Services, Activities not adequately defined. |

37. Employed Population by Employment Status

The employed population can be classified by their status at work as follows:

1. Employer
2. Own account worker
3. Employee (Private / Cooperative / Government)
4. Unpaid family worker
5. Other.

38. Establishments and their Growth by Ownership

Factories, enterprises and industrial establishments with at least 5 workers are included in this category. The total number of establishments and their relative growth over the previous years by type of ownership (private, cooperative and government) can be used as a rough indicator for industrialization and development towards the market-oriented economic system.

39. Coverage of Social Security Scheme for Registered Employed Persons

Employers, employing 5 or more workers and operating in the prescribed areas, have the obligation to insure their workers under the Social Security Insurance Scheme.

The Scheme shall take responsibility for the insured workers in place of the employers in such cases as illness, sustaining injury from work accidents, maternity and death.

Contribution

Employers and Workers are liable to pay monthly contribution of 2.5 per cent and 1.5 per cent respectively based on monthly wage bill. Benefits provided for insured workers are:

<u>Free Medical Care:</u>	In case of sickness; maternity; and work injury; and
<u>Cash Benefits:</u>	Sickness Benefit; Maternity Benefit; Funeral Grant, Temporary Disability Benefit; Permanent Disability Pension; and Survivors Pension.

40. **Real GDP and Growth Rate of GDP**

Gross Domestic Product (GDP) is the total value of all final goods and services produced in an economy during a year. Real GDP is the value of all final goods and services at constant producers' prices.

Growth rate of GDP is the growth of the real GDP of an economy over time.

41. **Real GDP per Head and Growth Rate**

Real GDP per head is real GDP per person. It is computed by dividing total real GDP by total population for a given year.

42. **Food Availability per Head**

The amount of food (rice, edible oil, meat, fish, beans and pulses, etc.) available in the country per person.

43. **Investment, Exports and Imports**

Investment is the expenditure for fixed asset which makes addition to capital stock.

Exports (value) is the value of goods and services sent to another country.

Imports (value) is the value of goods and services brought into the country.

44. **Public Expenditure by Sector**

Total expenditure incurred by the government for the development of the country which includes both current and capital expenditure and usually expressed by sectors.

45. **Consumers' Price Index**

The *Consumer Price Index* measures the average change in the retail prices of goods and services purchased and consumed. It is computed based on "1986 Household Expenditure Survey" conducted in Yangon by the Central Statistical Organization. All goods and services purchased and consumed are grouped into six major categories and goods and services for computing the CPI are selected on the basis of their importance and representativeness for the respective groups.

46. Cultivated Land per Head

Cultivated land or sown area is the area which is actually planted during the agricultural year. On the other hand, cultivated land can also be expressed as the sum of area under temporary crops and area under permanent crops.

Area under temporary crops includes all land used for crops with a growing cycle of under one year, which needs to be newly sown or planted for further production after harvest.

Land under permanent crops is the land cultivated with crops which occupy it for a long period of time and which do not have to be planted for several years after each harvest.

The cultivated land per head is the amount of land available for each and every person in the country.

47. Land Use (under Cultivation, Forest and Others)

Gross area sown is the total area cultivated during the year, including areas under multiple cropping.

Irrigated areas related to areas purposely provided with water, including land flooded by river water for crop cultivation on pasture improvement, whether this area is irrigated several times or only once during the year stated. Forest and woodland refer to land under natural or planted trees, whether productive or not, and includes land from which forest have been cleared but which will be reforested in the foreseeable future. The information on land-use can be obtained from the Department of Settlement and Land Records.

48. Number of motor vehicles per 1000 Population

Total Number of Motor Vehicles means, officially registered motor vehicles of various types, passengers cars, commercial vehicles and motor cycles but excluding trailers and farm tractors.

Private use vehicle means passengers and goods vehicle for private use only, not for commercial use.

49. Energy Consumption by Type

Major portion of energy is obtained from the fire-wood, charcoal, electric power and petroleum. The production of fire-wood and charcoal is expressed in terms of thousand metric ton and crude oil production is measured by million barrels. The electric energy is expressed as the millions of units (Mega-watt-hour) consumed.

Units consumed indicate the amount of electric power consumed by the power stations for department use plus power used by the consumers. Sale of electric power is classified into four categories such as:

- (i) general purpose (general purpose - domestic use);
- (ii) industrial power;
- (iii) bulk (commercial power); and
- (iv) others (temporary lighting, small power and street lighting).

50. Railway Traffic Passenger Miles

One passenger-mile is a mile a passenger is carried. Passenger-kilometers can then be computed by multiplying passenger-miles by 1.6.

51. Railway Traffic Cargo-Ton Miles

One cargo (freight ton-mile) is a ton of goods carried a mile. Freight cargo-ton-kilometers can be computed by multiplying cargo-miles by 1.6.

52. Daily Newspaper: Number of Circulation

Total number of daily newspapers circulated in a day.

53. Number of Radios and TV Sets, and Radios and TV Sets per 1,000 Inhabitants

Number of radios and television receivers licensed. The figures on receivers relate to all types of receivers for radio broadcasts and television broadcasts to the general public.

54. Number of Telephone and Telephones per 1,000 Inhabitants

Number of telephone lines subscribed.

55. Number (Percentage) of Villages with School, Clinic and Electric Lighting

Proportion of villages with basic education facilities, health care facilities and electric lighting (as communication facility). Here, school includes all types of government schools, affiliated schools and monastic primary schools but exclude private schools. Similarly, clinic includes both rural health care center and sub-rural health center.

