

UNION OF MYANMAR
Ministry of Labour
Department of Labour / UNFPA

HANDBOOK ON
HUMAN RESOURCES DEVELOPMENT
INDICATORS, 2000



Department of Labour



UNFPA
United Nations
Population Fund

April 2001, Yangon

FOREWORD

It is the fourth consecutive year that we are publishing the Handbook on Human Resources Development Indicators. It is compact but still gives the most important indicators of the Union of Myanmar. We are happy to learn that they are useful to many individuals and organizations.

It must be pointed out that this handbook is the outcome of the cooperation without reservation, among various Departments under line ministries and UNFPA. Their efforts and zeal must be recognised and the honour should also go to those intellectuals who gave us their time in putting things in order.

As we have stated in our previous publications, we would review and add some more indicators, and at the same time improve the quality of this handbook. Some indicators have been changed and updated facts gathered from primary sources.

At first it seemed an easy task of collecting data, for this booklet is the fourth in its series, and we thought that every thing will be fine. But as we went through the job, we encountered many unforeseen circumstances and only with patience and tact we were able to publish this HRDI, 2000.

We are looking forward that this Handbook of Human Resources Development Indicators, 2000 will be of use to those who are interested in HRDIs. Our aim is to widen the scope of distribution as much as possible and we hope that the handbook would be within the reach of the users.

The last but not the least is the fact that we would like to express our gratitude to UNFPA and to all members of the Core Working Group. I must personally thank the Central Statistical Organization for its cooperation, because without its timely cooperation this publication would be impossible.

U Soe Nyunt
Director - General
Department of Labour

Population

Population information is usually collected and published by the Department of Population (DOP). Total population of Myanmar was estimated at 42.32 million in 1992, and it became 43.12 million in 1993. It grew to 48.12 million in 1999. 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(%)
1992	21.05	21.28	42.32	1.87
1993	21.44	21.68	43.12	1.87
1994	21.83	22.09	43.92	1.87
1995	22.23	22.52	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*	23.90	24.22	48.12	1.84

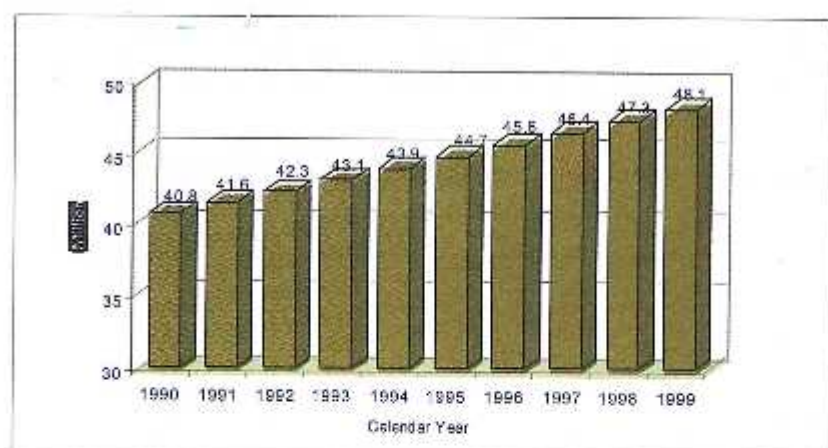
*CSO : Statistical Yearbook, 1998

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, 1999*
(in thousand)

State/Division	Male	Female	Total	Area (sq. km.)	Density (per sq. km.)
Kachin	617	631	1248	89042	14
Kayah	132	127	259	11732	22
Kayin	722	738	1460	30383	48
Chin	230	243	473	36019	13
Sagaing	2586	2694	5280	94625	56
Tanintharyi	648	650	1290	43345	30
Bago	2469	2461	4930	39404	125
Magway	2192	2272	4464	44821	100
Mandalay	3180	3262	6442	37023	174
Mon	1227	1219	2446	12297	199
Rakhine	1343	1355	2698	36778	73
Yangon	2719	2751	5470	10171	538
Shan	2393	2309	4702	155801	30
Ayeyarwady	3334	3329	6663	35137	190
Total	23903	24220	48123	676578	71

*CSO : Statistical Yearbook, 1998

Chart I. Estimated Total Population of Myanmar, 1990-1999

Population distribution by age and gender together with sex ratios, and dependency ratios, as of 1st October 1999, are given in Table 3.

Table 3. Population Distribution by Age and by Sex, 1999*

(in thousand)

Age Group	Population (number)			Distribution (%)			Sex Ratio
	Male	Female	Total	Male	Female	Total	
0-4	2952	2950	5902	6.1	6.1	12.3	100.1
5-9	2651	2588	5239	5.5	5.4	10.9	102.4
10-14	2456	2257	4713	5.1	4.7	9.8	108.8
15-19	2386	2267	4653	5.0	4.7	9.7	105.3
20-24	2230	2180	4410	4.6	4.5	9.2	102.3
25-29	2028	2037	4065	4.2	4.2	8.5	99.6
30-34	1820	1881	3701	3.8	3.9	7.7	96.8
35-39	1588	1657	3245	3.3	3.4	6.7	95.8
40-44	1335	1405	2740	2.8	2.9	5.7	95.0
45-49	1115	1184	2299	2.3	2.5	4.8	94.2
50-54	893	956	1849	1.9	2.0	3.8	93.4
55-59	733	806	1539	1.5	1.7	3.2	90.9
60-64	592	675	1267	1.2	1.4	2.6	86.7
65+	1124	1377	2501	2.3	2.9	5.2	81.6
Total	23903	24220	48123	49.7	50.3	100.0	98.7

Dependency Ratio Total = 61.7%; Old-age DR (65+) = 8.4%; Young DR (0-14) = 53.3%

Dependency Ratio Total = 68.9%; Old-age DR (60+) = 13.2%; Young DR (0-14) = 55.6%

*CSO : Statistical Yearbook, 1998

Vital Rates

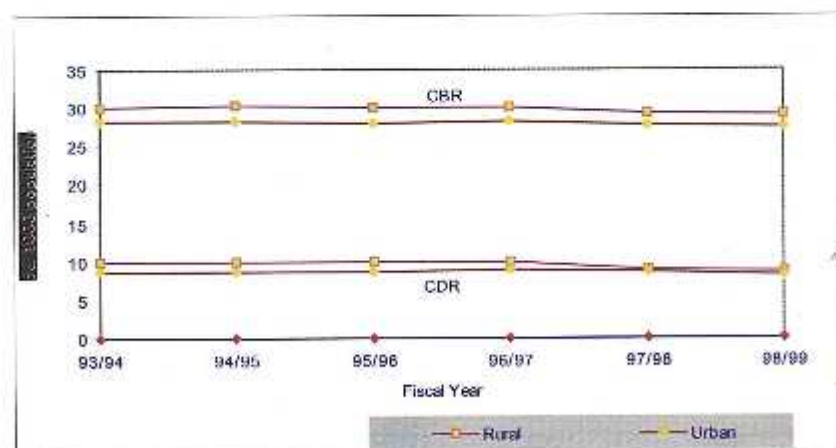
In Myanmar, vital statistics such as Crude Birth Rate (CBR), Crude Death Rate (CDR), Maternal Mortality Ratio and Late Foetal Death Rate are collected and disseminated by Central Statistical Organization (CSO) in collaboration with the Department of Health Planning (DHP). The vital rates for the union 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		93/94	94/95	95/96	96/97	97/98	98/99
Crude Birth Rate (CBR)	Union	29.5	29.7	29.6	29.5	28.9	-
	Rural	30.0	30.2	30.1	30.0	29.2	29.1
	Urban	28.1	28.2	28.0	28.1	27.8	27.5
Crude Death Rate (CDR)	Union	9.6	9.5	9.6	9.6	8.8	-
	Rural	9.9	9.8	9.9	9.9	8.9	8.7
	Urban	8.7	8.7	8.6	8.8	8.5	8.2
Maternal Mortality Rate (MMR)	Union	1.6	1.6	1.6	1.7	1.5	-
	Rural	1.8	1.8	1.8	1.9	1.7	1.8
	Urban	1.0	1.0	1.0	1.0	1.0	1.0

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

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 adhoc 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	Coverage	94/95	95/96	96/97	97/98	98/99
Percentage of Severely Malnourished Children under 3	Union	n.a	19.2	15.3	12.5	-
Malnourished Children under 5		-	-	-	-	7.9
Contraceptive Prevalence Rate*	Union	25.1	28.6	32.7	43.7	n.a
Percentage of Low birth Weight babies	Union	n.a	16.0	n.a	n.a	n.a
Percentage Coverage of Universal Child Immunization	Union	82.0	85.0	86.0	89.0	79.9
Number of Villages per Rural Health Center and Sub-Centers	Union	44.3	44.3	47.1	45.3	46.9
Percentage of Population Accessible to Safe Drinking Water ^x	Union	45.5	49.1	57.0	66.0	71.5
	Rural	44.2	42.5	50.0	59.9	65.8
	Urban	49.3	68.7	78.0	87.9	89.2
Percentage of Population Accessible to Proper Sanitation ^x	Union	50.6	41.0	45.7	45.2	63.1
	Rural	44.0	36.0	39.2	39.0	56.5
	Urban	70.5	56.0	65.1	64.5	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).

A composite indicator for measuring the quality of health care services in the rural areas, namely, "percentage of rural health care centers with standard level of staff, equipment and supply of essential drugs" is not yet available. However, "percentage of fully staffed rural health care centers according to the new setup" is available and given with a remark. 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	93/94	94/95	95/96	96/97	97/98	98/99
Population per Physician	3,497	3,521	3,455	3,451	3,311	3,352
Population per Nurse	4,762	4,525	4,525	4,614	3,921	3,775
Population per Hospital Bed	1,536	1,558	1,577	1,588	1,602	1,591

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 the Departments of Higher Education 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. 28 "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		94/95	95/96	96/97	97/98	98/99
Gross Enrolment Ratio by Level	P	109.6	104.6	99.7	97.6	96.4
	M	35.7	38.3	39.2	43.5	43.6
	H	20.3	20.6	20.8	22.7	30.0
Net Enrolment Ratio by Level	P	73.6	75.8	74.8	75.2	77.0
	M	29.3	32.7	34.3	37.0	38.8
	H	16.7	17.6	18.2	19.3	26.4
Transition Rate Between Levels	P to M	73.9	70.9	66.4	66.3	66.7
	M to H	92.0	90.8	91.0	89.3	91.8
Retention Rate by Level	Primary	37.1	34.5	35.8	47.5	50.0
	Middle	62.0	62.4	61.1	62.4	63.5
Internal Efficiency of Primary Education	^(a) Efficiency	46.9	50.9	49.8	75.9	78.2
	^(b) Graduate	31.1	35.9	35.1	56.8	63.8

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.

Table 8. Number of Graduates by Specialization (Indicator No.25)

Sr.	Specialization	94/95	95/96	96/97	97/98	98/99
1.	Engineering and Architect	683	1620	959	1199	1028
2.	Economics	900	1882	1063	126*	91*
3.	Education	702	1642	331	1196	1114
4.	Forestry	34	35	39	53	46
5.	Veterinary	120	110	667	544	706
6.	Computer Science & Technology	54	210	72	256	242
7.	Arts and Sciences ^(a)	19527	80658	14440	1735	6962
8.	Foreign Languages	46	274	220	241	481
9.	Agriculture					
	Master of Agriculture(M.Agri.Sc)	6	-	-	7	6
	Agriculture (B.Agri. Sc)	188	213	217	-	-
10.	Health Personnel					
	Medical Science (MBBS)	508	508	452	516	404
	Dental Science (BDS)	50	52	-	48	40
	Paramedical Science (BPSc)	-	22	-	-	18
	Pharmacy (B.Pharm)	-	21	-	-	2
	Nursing Science (Diploma)	522	862	1163	998	940
	Nursing Science (BNSc)	-	66	-	70	95
	Community Health (B.Comm.H)	-	-	-	-	14
	Diploma (Postgraduate)	7	3	9	4	201
	Master (Postgraduate)	175	213	183	160	163

* Postgraduate only

(a) "Arts and Sciences" 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.26)

Sr.	Institution	94/95	95/96	96/97	97/98	98/99
1.	Government Technical Institute	-	3342	3954	3317	4177
2.	Technical High School	1818	1674	1130	2094	2080
3.	State Agriculture Institute	228	381	545	784	1937
4.	Agricultural High School	568	497	498	645	-
5.	Industrial Training Centre	96	96	92	231	98
6.	Technical Training School	-	-	-	-	200
7.	Commercial School	269	284	284	749	1490
8.	Machinery Repair & Mainten. Sch.	121	144	118	180	85
9.	Handicraft School	1431	1524	823	1244	556
10.	Myanma Lacquer-Ware Institute	9	10	20	39	37
11.	Weaving Schools	155	143	127	137	129
12.	School for Home Science	2608	2148	1853	1900	1424
13.	Cooperatives Colleges	-	459	340	-	511
14.	Forestry Training Schools	1184	1086	918	1145	925

Table 10. Percentage of Female Students by Education Level (Indicator No.29)

Sr.	Education Level	94/95	95/96	96/97	97/98	98/99
1.	Primary Level	48.4	48.8	48.8	49.3	49.5
2.	Middle School Level	49.0	49.1	49.1	49.2	48.3
3.	High School Level	54.1	54.2	54.5	53.9	53.2
4.	Professional Institutions	39.8	42.3	66.7	67.0	67.0
5.	Arts & Science Universities	63.8	60.8	62.3	62.0	62.0
6.	Government Technical Institute	24.3	24.8	27.1	27.0	36.9
7.	State Agricultural Institute	47.8	42.4	35.4	35.5	30.5

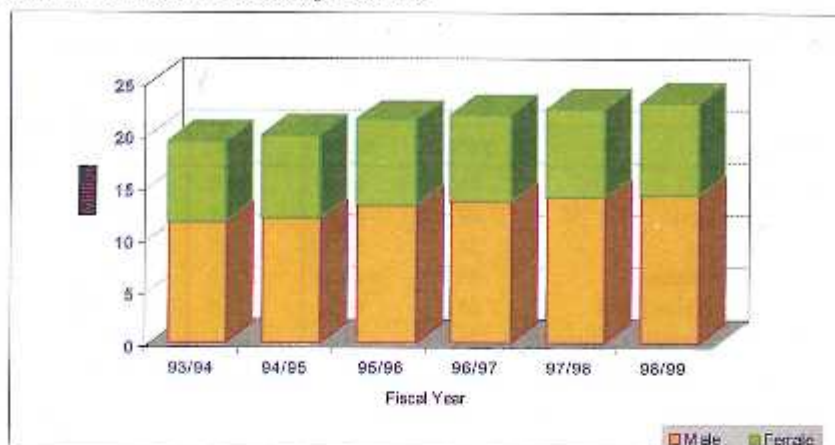
Labour Force

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. 31, 32 & 33)

Indicator		93/94	94/95	95/96	96/97	97/98	98/99
Total Labour Force (million)	M	11.73	12.03	13.23	13.57	13.92	14.28
	F	7.75	7.95	8.17	8.38	8.60	8.82
	T	19.48	19.98	21.40	21.95	22.52	23.10
Labour Force Participation Rate (LFPR)	M	77.73	79.04	76.56	78.57	79.09	78.63
	F	49.30	49.10	46.00	47.18	47.64	46.67
	T	63.23	63.63	61.07	62.66	63.17	62.35
Unemployment Rate	M	3.67	3.66	3.70	3.68	3.66	3.64
	F	4.90	4.91	4.77	4.77	4.77	4.76
	T	4.16	4.15	4.11	4.10	4.08	4.07

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, an overview of 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.35)
(in thousands)

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.35)

(in thousands)

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 Performances

(Indicator No. 39, 40, 42 & 44)

Indicator	93/94	94/95	95/96	96/97	97/98	98/99
Real GDP (K. million)	58064	62406	66742	71042	75123	79460
Growth Rate of GDP (%)	6.0	7.5	6.9	6.4	5.7	5.8
Real GDP per Capita (K)	1347	1421	1492	1559	1619	1650
Investment (K. million)	37466	54596	82582	118313	150240	206912
Export (K. million)	4228	5405	5033	5488	6290	7700
Import (K. million)	7923	8332	10302	11779	14258	16941
CPI ('86=100; Yangon)	493.0	603.7	735.5	882.8	1182.1	1762.2

Chart IV. GDP Growth Rate

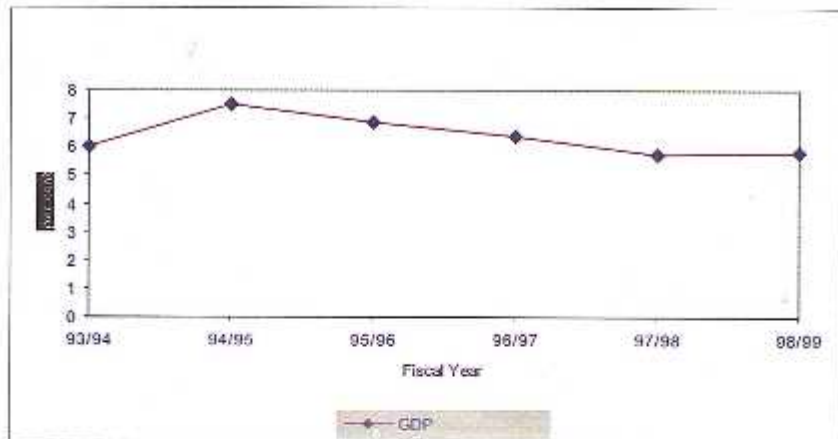


Table 15. Public Expenditure by Sector (Indicator No.43)

(million kyats)

Sr.	Sector	94/95	95/96	96/97	97/98	98/99
	Total	122490	149546	190180	293760	388210
1.	Agriculture	16973	25626	30244	38402	46521
2.	Livestock & Fishery	1541	1758	1449	1666	2059
3.	Forestry	3236	4252	5901	7408	10119
4.	Energy	3312	4361	6614	269	516
5.	Mining	1723	1777	1961	28413	29114
6.	Processing & Manufacturing	7008	9925	11828	17095	30295
7.	Electric Power	2200	3244	4532	7092	8088
8.	Construction	14224	17730	26215	42272	46031
9.	Transportation	6871	10616	12761	16495	20555
10.	Communication	-	-	2148	2626	3653
11.	Trade	27586	21709	25847	67320	115757
12.	Social	9411	11562	17120	16804	15954
	Education	5640	6547	9974	9207	8525
	Health	1846	2306	2731	3025	3020
	Others	1925	2709	4415	4572	4409
13.	Financial	5191	6982	8551	10324	12736
14.	Administrative Organisations	23136	29991	35009	37574	47312
15.	Reserved Fund	78	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. 41, 45 & 46)

Indicator	93/94	94/95	95/96	96/97	97/98	98/99
Food availability per head (kg.)						
Rice	196.00	197.00	206.00	204.08	195.58	198.45
Edible Oil	7.33	9.50	10.27	7.10	7.71	8.12
Meat	4.60	4.87	5.45	5.89	6.38	6.52
Fish	17.95	16.31	13.59	17.29	17.90	19.19
Beans & Pulses	6.94	13.98	14.60	14.44	15.32	10.79
Cultivated land per head (acre)	0.6525	0.6831	0.7115	0.6864	0.6538	0.6959
Land Use (000 Acres)						
Under Cultivation	28134	30005	31837	30422	30336	32882
Reserved & Other Forests	80018	80057	80060	80213	80249	84903

Other Indicators

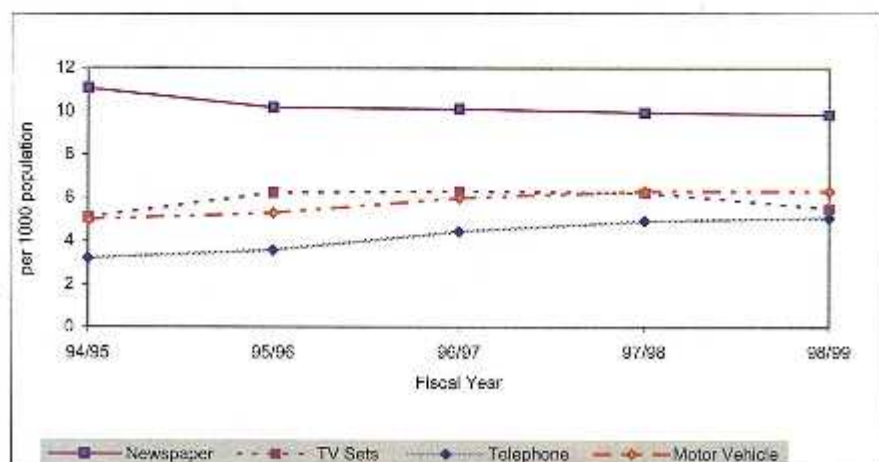
Most indicators described in this section are collected by CSO from the service statistics (administrative records) of various departments. At the moment, one important composite indicator, namely, "Number (Percentage) of Villages with School, Clinic and Electric Lighting" is not available although villages 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. 47, 49, 50, 51, 52 & 53)

Indicator	94/95	95/96	96/97	97/98	98/99
Number of Motor Vehicles (private) per 1,000 Population	5.0	5.3	6.0	6.3	6.3
Railway Traffic Passenger Miles (million)	2904	2818	2725	2492	2528
Railway Traffic Cargo-Ton Miles (million)	585.8	551.6	577.7	565.2	612.5
Daily newspapers Myanmar	421	422	425	405	373
Circulation ('000) English	24	24	24	25	24
Number of Radios	71271	22643	13007	32293	35591
Number of TV Sets	223886	279251	282504	284642	260724
Radios per 1,000 inhabitants	1.62	0.51	0.29	0.70	0.75
TV Sets per 1,000 inhabitants	5.10	6.24	6.31	6.24	5.51
Number of Telephones	140428	160160	199017	225315	240673
Telephones per 1,000 inhabitants	3.20	3.58	4.45	4.94	5.09

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 fourth consecutive year of publishing 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	93/94	94/95	95/96	96/97	97/98	98/99
1.	Total Population (Million)	43.12	43.92	44.74	45.57	46.40	47.25
	Male	21.44	21.83	22.23	22.63	23.04	23.46
	Female	21.68	22.09	22.51	22.94	23.36	23.79
(CSO)							
2.	Crude Birth Rate	29.5	29.7	29.6	29.5	28.9	
	Union	29.5	29.7	29.6	29.5	28.9	
	Rural	30.0	30.2	30.1	30.0	29.2	29.1
	Urban	28.1	28.2	28.0	28.1	27.8	27.5
(CSO)							
3.	Crude Death Rate	9.6	9.5	9.6	9.6	8.8	
	Union	9.6	9.5	9.6	9.6	8.8	
	Rural	9.9	9.8	9.9	9.9	8.9	8.7
	Urban	8.7	8.7	8.6	8.8	8.5	8.2
(CSO)							
4.	Total Fertility Rate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Rural	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Urban	3.53	3.50	3.49	3.48	3.45	3.43
(CSO)							
5.	Migration rate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
6.	Under 5 Mortality Rate	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Rural	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Urban	-	72.1	72.4	72.3	72.1	72.2
(U5MR) (CSO)							
7.	Maternal Mortality Rate	1.6	1.6	1.6	1.7	1.5	
	Union	1.6	1.6	1.6	1.7	1.5	
	Rural	1.8	1.8	1.8	1.9	1.7	1.8
	Urban	1.0	1.0	1.0	1.0	1.0	1.0
(MMR) (CSO)							
8.	Life Expectancy at Birth (years)	59.6	59.8	60.0	60.2	60.2	
	Male- Union	59.6	59.8	60.0	60.2	60.2	
	Rural	59.5	59.7	59.9	60.1	60.1	60.2
	Urban	60.0	60.2	60.4	60.6	60.6	60.8
	Female- Union	62.2	62.4	62.6	62.8	62.5	
	Rural	61.6	61.8	62.0	62.2	62.3	62.5
	Urban	63.9	64.1	64.3	64.5	64.6	64.9
(CSO)							
9.	Percentage of Severely Malnourished Children Under 3	n.a.	n.a.	19.2	15.3	11.5	-
	Malnourished Children Under 5	-	-	-	-	-	7.9
(DHP)							
10.	Contraceptive Prevalence Rate or Prevalence Rate (CPR; %)	21.9	25.1	28.6	32.7	43.7	n.a.
(DHP)							
11.	Percentage of Low Birth Weight Babies	n.a.	n.a.	16.0	n.a.	n.a.	n.a.
(DHP)							
12.	Percentage Coverage of Universal Child Immunization	77.0	82.0	85.0	86.0	89.0	79.9
	Union	77.0	82.0	85.0	86.0	89.0	79.9
(DHP)							

Note: Values of Indicator no.1 for FY 1997/98, and FY 1998/99 are quoted from Statistical

Sr.	Indicator		93/94	94/95	95/96	96/97	97/98	98/99
13.	Population per Physician (DHP)		3497	3521	3455	3451	3311	3352
14.	Population per Nursing Personnel (DHP)		4762	4525	4525	4614	3921	3775
15.	Population per Hospital Bed (DHP)		1536	1558	1577	1588	1602	1591
16.	No. of Villages per Rural Health Care Center No. of Villages per Rural Health Care Center and Sub-Centers (DHP)		44.3	44.3	44.3	47.1	45.3	46.9 9.31
17.	Percentage of RIIC with Standard Level of Staff, Equipment and Supply of Essential Drugs - (according to new set-up) - (Irrespective of sanction) (DHP)		n.a.	2.9	2.9	2.9	n.a	4.03 100
18.	Pct. Of Population Accessible to Safe Drinking Water (DHP)	Union Rural Urban	n.a. n.a. n.a.	45.5 44.2 49.3	49.1 42.5 68.7	57.0 50.0 78.0	66.0 59.9 87.9	71.5 65.8 89.2
19.	Pct. Of Population Accessible to Proper Sanitation (DHP)	Union Rural Urban	n.a. n.a. n.a.	50.6 44.0 70.5	41.0 36.0 56.0	45.7 39.2 65.1	45.2 39.0 64.5	63.1 56.5 83.6
20.	Gross Enrolment Ratios by Level (DEPT, MERB)	P M H	118.3 30.8 19.3	109.6 35.7 20.3	104.6 38.3 20.6	99.7 39.2 20.8	97.6 43.5 22.7	96.4 43.6 30.0
21.	Net Enrolment Ratios by Level (DEPT, MERB)	P M H	72.0 23.6 14.8	73.6 29.3 16.7	75.8 32.7 17.6	74.8 34.3 18.2	75.2 37.0 19.3	77.0 38.8 26.4
22.	Transition Rates bet. Levels (DEPT, MERB)	P to M M to H	72.5 94.0	73.9 92.0	70.9 90.8	66.4 91.0	66.3 89.1	66.7 91.8
23.	Retention Rates by Level (DEPT)	Primary Middle High	33.1 63.8 85.7	37.1 62.0 87.9	34.5 62.4 89.4	40.4 61.1 88.1	47.5 62.4 88.0	50.0 63.5 98.0
24.	Internal Efficiency of Primary Education (%) (DEPT, MERB)	Efficiency Graduates	39.17 29.40	46.86 31.10	50.86 35.90	49.80 35.10	75.9 56.8	78.2 63.8

Sr.	Indicator	93/94	94/95	95/96	96/97	97/98	98/99
25.	Number of Engineering & Architect Graduates by Specialization	1282	683	1620	959	1199	1028
	Economics	1876	900	1882	1063	126*	91*
	Education	1998	702	1642	331	1196	1114
	Forestry	41	34	35	39	53	46
	Veterinary	141	120	110	667	544	706
	Computer Science & Technology	33	54	210	72	256	242
	Arts & Sciences	86412	19527	80658	14440	1735	6962
	Foreign Languages	38	46	274	220	241	481
	Agriculture	352	194	213	217	7	6
	Master of Agriculture(M.Agri.Sc)	1	6	-	-	7	6
	Agriculture(B.Agri.Sc)	351	188	213	217	-	-
	Health Personnel	1294	1262	1747	1807	1796	1877
	Medical Sc(MBBS)	577	508	508	452	516	404
	Dental Sc(RDS)	40	50	52	-	48	40
	Paramedical Sc(BPSc)	40	-	22	-	-	18
	Pharmacy(B.Pharm)	23	-	21	-	-	2
	Nursing Sc (Diploma)	465	522	862	1163	998	940
	Nursing Sc (BNSc)	-	-	66	-	70	95
	Community Health (B.Comm.H)	-	-	-	-	-	14
	Diploma (Postgraduates)	19	7	3	9	4	201
	Master (Postgraduates)	130	175	213	183	160	163
	(DLF, MERB, DAP, DMS, FD, DAST)						
26.	Number of Persons Trained in Technical, Agricultural and Vocational Institutions by Skill Level	*GTI 2324	-	3342	3954	3317	4177
		*THS -	1818	1674	1130	2094	2080
		*SAI 205	228	381	545	784	1937
		*AHS -	568	497	498	645	-
		*ITC 103	96	96	92	231	98
		*TTS -	-	-	-	-	200
	Commercial Sch.	243	269	284	284	749	1490
	Machinery Repair & Maint. Sch.	185	121	144	118	180	85
	Handicraft Sch.	1556	1431	1524	823	1244	556
	Myanma Lacquer-Ware Institute	9	9	10	20	39	37
	Weaving Schs.	157	155	143	127	137	129
	School for Home Science	2489	2608	2148	1853	1900	1424
	Cooperative Colleges	-	-	459	340	-	511
	Forestry Training Schools	1145	1184	1086	918	1145	925
	(MERB, DOC, DTVE, DSW, DAP, DCI, FD, DMIP)						

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

Sr.	Indicator		93/94	94/95	95/96	96/97	97/98	98/99
27.	Adult Literacy Rate	Union	83.2	84.5	85.8	87.1	88.4	89.7
		Male	86.7	87.5	88.2	89.0	89.8	90.6
		Female	79.7	81.5	83.3	85.1	86.9	88.7
	(DEPT)							
28.	Mean Years of Schooling per Person Aged 5 & Over (ENVIPRO)	Union	5.1	5.4	5.8	6.2	6.3	6.7
29.	Percentage of Female Student by Level	Primary	48.5	48.4	48.8	48.8	49.3	49.5
		Middle	48.4	49.0	49.1	49.1	49.2	48.3
		High	54.6	54.1	54.2	54.5	53.9	53.2
		Professional Inst.	38.3	39.8	42.3	66.7	67.0	67.0
		Arts & Science	60.5	63.8	60.8	62.3	62.0	62.0
		GTI	23.5	24.3	24.8	27.1	27.0	36.9
	(DEPT, MERB, DAP)		SAI	9.5	47.8	42.4	35.4	35.5
30.	Percentage of Senior Official Positions Held by Women in Public Sector (CSO)		12.72	13.14	13.10	13.88	n.a	n.a
31.	Total Labour Force (million)	Both Sexes	19.48	19.98	21.40	21.95	22.52	23.10
		Male	11.73	12.03	13.23	13.57	13.92	14.28
		Female	7.75	7.95	8.17	8.38	8.60	8.82
(DOL)								
32.	Labour Force Participation Rate (percent)	Both Sexes	63.23	63.63	61.07	62.66	63.17	62.35
		Male	77.73	79.04	76.56	78.57	79.09	78.63
		Female	49.30	49.10	46.00	47.18	47.64	46.67
(DOL)								
33.	Unemployment Rate (per cent)	Both Sexes	4.16	4.15	4.11	4.10	4.08	4.07
		Male	3.67	3.66	3.70	3.68	3.66	3.64
		Female	4.90	4.91	4.77	4.77	4.77	4.76
(DOL)								
34.	Labour Force by Ed. Level (per cent)	Illiterate					9.99	9.99
		Literate					47.6	47.6
		Primary					27.3	27.3
		Secondary					12.4	12.4
		Higher Ed.					2.7	2.7
	(DOL)							

LFS 1990 Figures
Reproduced

Sr.	Indicator	93/94	94/95	95/96	96/97	97/98	98/99
35.	Percentage Distribution of Employed Population <i>by Occupation Group</i>					100.0	100.0
	Legislators, Senior Off. & Managers					0.4	0.4
	Professionals					2.8	2.8
	Technical & Associate Professionals					2.0	2.0
	Clerks					2.1	2.1
	Services, Shop, etc. sales workers					10.1	10.1
	Skilled Agri. & Fishery Workers					32.8	32.8
	Craft and Related Workers					11.6	11.6
	Machine Operators and Assemblers					3.4	3.4
	Elementary Occupation					34.8	34.8
	<i>by Industry Group</i>					100.0	100.0
	Agri. , Hunting, Forestry & Fishing					56.5	56.5
	Mining and Quarrying					1.0	1.0
	Manufacturing					11.4	11.4
	Electricity, Gas and Water					0.2	0.2
	Construction					2.6	2.6
	Trade, Restaurants & Hotels					15.8	15.8
	Transport, Storage & Communication					3.8	3.8
	Financial Institution					0.3	0.3
	Social and Personal Services					7.7	7.7
	Activities not Adequately Defined (DOL)					0.8	0.8
36.	Percentage Distribution of Employed Population <i>by Employment Status</i> Employer Own Acc. Worker Employee Unpaid Family Worker (DOL) Others					1.5 35.3 30.6 32.6 0.1	1.5 35.3 30.6 32.6 0.1
37.	No. of Establishments <i>by Ownership</i> Public Cooperative Private Joint Venture Pct. Change in Establishments <i>By Ownership</i> Public Cooperative Private (DOL) Joint Venture	-	22677 7848 48048 297	-	30874 3261 67036 2098		20652 2435 84760 1129
			13.2%		36.2%		-33.10%
			24.3%		-58.4%		-25.32%
			1.4%		39.5%		26.43%
			12.1%		606.4%		-46.18%

Note: The values of indicators no. 34, 35 and 36 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.

The establishments by ownership (Indicator 37) is available only once in two years through establishment surveys conducted by the Department of Labour.

	Indicator	93/94	94/95	95/96	96/97	97/98	98/99
38.	Coverage of Social Security Scheme for Eligible Employed Persons (SSB)	313899	317634	340320	364834	387253	414289
	Both Sexes	236089	231663	241624	244474	253141	259880
	Male	77810	85971	98696	120360	134112	154409
	Female						
39.	Real GDP (K. million)	58064	62406	66742	71042	75123	79460
	Growth Rate of GDP (%) (PD)	6.0	7.5	6.9	6.4	5.7	5.8
40.	Real GDP per Capita (Kyats) (PD)	1347	1421	1492	1559	1619	1650
41.	Food Availability per Head(kg)	196.00	197.00	205.78	204.08	195.58	198.45
	Rice	7.33	9.50	10.27	7.10	7.71	8.12
	Edible Oil	4.60	4.87	5.45	5.89	6.38	6.52
	Meat	17.95	16.31	13.59	17.29	17.90	19.19
	Fish	6.94	13.98	14.58	14.44	15.32	10.79
	Beans & Pulses						
42.	Investment (K. million)	37465.5	54596	82582	118313	150240	206912
	Export (K. million)	4227.8	5405	5033	5488	6290	7700
	Import (K. million) (PD)	7923.3	8332	10302	11779	14258	16941
43.	Public Expenditure by Sector, Total (K. million)	85694	122490	149546	190180	293760	388210
	Agriculture	5719	16973	25626	30244	38402	46521
	Livestock & Fishery	2849	1541	1758	1449	1666	2039
	Forestry	2570	3236	4252	5901	7408	10119
	Energy	-	3312	4361	6614	269	516
	Mining	4328	1723	1777	1961	28413	29114
	Processing & Manufacturing	7537	7008	9925	11828	17095	30295
	Electric Power	1312	2200	3244	4532	7092	8088
	Construction	7561	14224	17730	26215	42272	46031
	Transportation	4640	6871	10616	12761	16495	20555
	Communication	-	-	-	2148	2626	3153
	Trade	18232	27586	21709	25847	67320	115757
	Social	8602	9411	11562	17120	16804	15954
	Education	5447	5640	6547	9974	9207	8525
	Health	1672	1846	2306	2731	3025	3020
	Others	1483	1925	2709	4415	4572	4409
	Financial	4231	5191	6982	8551	10324	12736
	Administrative Organizations	18112	23136	29991	35009	37574	47312
	Reserve Fund	1	78	13	-	-	-
	(PD)						
44.	Consumer Price Index Yangon (CSO) (1986=100)	493.0	603.7	735.5	882.8	1182.1	1762.2
45.	Cultivated Land per Head (Acres) (CSO)	0.6525	0.6831	0.7115	0.6864	0.6538	0.6959

Sr.	Indicator	93/94	94/95	95/96	96/97	97/98	98/99
46.	Land Use('000 acre) Gross Area Sown (CSO,FD)/Reserved& Other Forest	28134 80018	30005 80057	31837 80060	30422 80213	30336 80249	32882 84903
47.	Number of Motor Vehicles (Private) per 1,000 Population Number of Motor Vehicles (Total) Per 1,000 Population (RTA)	4.4 5.7	5.0 6.3	5.3 6.7	6.0 7.8	6.3 8.3	6.3 8.3
48.	Percentage distribution of Energy Consumption by Type# Fire-Wood Charcoal Kerosene Electricity Gas Candle Others (CSO)	7.88 68.63 1.58 12.02 - - 9.69	- - - - - - -	14.60 40.39 1.76 26.54 6.61 1.06 9.04	- - - - - - -	9.37 45.69 0.82 23.97 0.90 12.22 7.03	- - - - - - -
49.	Railway Traffic Passenger Miles (million) (MR)	3216	2904	2818	2725	2492	2528
50.	Railway Traffic Cargo-Ton Miles (million) (MR)	579.9	585.8	551.6	577.7	565.2	612.5
51.	Daily Newspaper:No.in Myanmar Circulation('000) English (CSO)	417 22	421 24	422 24	425 24	405 25	373 24
52.	Number of Radios Number of TV Sets Radios per 1,000 Inhabitants TV Sets per 1,000 Inhabitants (MPT)	36827 212910 0.85 4.94	71271 223886 1.62 5.10	22643 279251 0.51 6.24	13007 282504 0.29 6.31	32293 284642 0.70 6.24	35591 260724 0.75 5.51
53.	Number of Telephones Telephones per 1,000 Inhabitants (MPT)	128695 2.98	140428 3.20	160160 3.58	199017 4.45	225315 4.94	240673 5.09
54.	Total Number of Villages* Villages with Number of School RHC or Sub-RHC Electric Lighting All 3 amenities Percentage of Villages with School RHC or Sub-RHC Electric Lighting All 3 amenities (GAD,DHP,MERB,MEPE,DEPT)	65238 32478 6929 960 n.a. 49.8 10.6 1.5 n.a.	65238 32492 6934 971 n.a. 49.8 10.6 1.5 n.a.	65238 32568 6944 1015 n.a. 49.9 10.6 1.5 n.a.	65238 32603 6974 1051 n.a. 50.0 10.7 1.6 n.a.	65238 34557 6980 1075 n.a. 53.0 10.7 1.6 n.a.	65212 34574 6990 1093 n.a. 53.0 10.7 1.7 n.a.

Note: # Energy consumption by fuel type (indicator 48) is available once in every two years.

*Villages upgraded to Small Towns

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

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

Additional HRD Indicators for Public Sector

Sr.	Indicator	93/94	94/95	95/96	96/97	97/98	98/99
1.	Dependency Ratio Total	-	62.7	62.5	62.3	61.9	61.7
	Old-age DR (65+)	-	8.1	8.1	8.2	8.3	8.4
	Young DR (0-14)	-	54.6	54.4	54.0	53.6	53.3
	Dependency Ratio Total	-	-	69.6	69.4	69.1	68.9
	Old-age DR (60+)	-	-	12.9	13.0	13.1	13.2
	Young DR (0-14)	-	-	56.8	56.4	56.0	55.6
2.	Monastic Education						
	Number of Students						
	Primary						
	Both Sexes	-	83414	83328	94394	94454	90328
	Male	-	57969	57636	65759	65799	58582
	Female	-	25445	25692	28635	28655	31746
	Middle						
	Both Sexes						5232
	Male						3312
	(DPPS) Female						1920

Note: Middle level curricula introduced to Monastic Education

DPPS = Department for the Promotion and Propagation of the Sasana

Single Leading causes of Mortality (1994-1998)

Sr. No.	1994	%	1995	%	1996	%	1997	%	1998	%
1.	Malaria	20.2	Malaria	20.2	Malaria	19.0	Malaria	16.2	Malaria	18.5
2.	Pneumonia	6.3	Ill-defined intestinal infections	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
3.	Ill-defined intestinal infections	5.4	Other diseases of respiratory system	5.3	Pneumonia	4.6	Pulmonary tuberculosis	5.7	Pulmonary tuberculosis	5.7
4.	Other diseases of pulmonary circulation and other forms of heart diseases	5.1	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
5.	Other diseases of respiratory system	4.9	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 hemorrhagic or infarction	4.6

Source: DHP: Hospital Administrative Report, Head Management Information System.

Single Leading causes of Morbidity (1994-1998)

Sr. No.	1994	%	1995	%	1996	%	1997	%	1998	%
1.	Malaria	18.7	Malaria	15.9	Malaria	15.1	Malaria	14.5	Malaria	15.8
2.	Single spontaneous delivery	8.7	Single spontaneous delivery	9.3	Single spontaneous delivery	9.6	Single spontaneous delivery	10.3	Single spontaneous delivery	9.8
3.	Diarrhoea and gastroenteritis of presumed infectious origin	8.5	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
4.	Other injuries of specified, unspecified and multiple body regions	5.9	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
5.	Other diseases of respiratory system	1.9	Other diseases of respiratory system	1.7	Other pregnancies with abortive out come	4.5	Other pregnancies with abortive out come	5.0	Other pregnancies with abortive out come	4.8

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 Rate (MMR)
8. Life Expectancy at birth
9. Percentage of Moderate to Severely Malnourished Children under 3
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 with Standard Level of Staff, Equipment and Supply of 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. Number of Graduates by Specialization

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

HUMAN RESOURCE DEVELOPMENT INDICATORS

1. Population by age and gender

1.1 Definition:

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

2.1 Definition:

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

3.1 Definition:

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

4.1 Definition:

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

5.1 **Definition:**

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)

6.1 **Definition:**

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)

7.1 Definition:

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

8.1 Definition:

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

9.1 Definition:

The children under 5 years with the body weight lying in red zone (3 standard deviation 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)

10.1 Definition:

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

11.1 Definition:

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

12. Percentage Coverage of Universal Child Immunization

12.1 Definition:

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

13.1 Definition:

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

14.1 Definition:

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

15. Population per Hospital Bed

15.1 Definition:

Number of population per hospital bed in a given year.

16. Number of Villages per Rural Health Care Centre

16.1 Definition:

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

16.2 Number of Villages per Rural Health Care Center and Sub-center

16.2 Definition

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

17. Percentage of RHC with Standard Level of Staff, Equipment and Supply of Essential Drugs (According to new set up)

17.1 Definition:

Number of rural health care centres which are fully staffed, equipped with standard facilities and receiving continuous supply of essential drugs divided by the total number of rural health care centres in a given year. The sanctioned staffs in a rural health care centre (RHC) includes one health assistant (HA), one lady health visitor (LHV), five midwives (MW; four in the sub-centres), five public health supervisor II (PHS II), and one assistant or one watchman. Standard facilities equipped in a RHC include RHC-kit, HA-kit, LHV-kit and sufficient number of MW-kits.

17. Percentage of RHC with Standard Level of Staff, Equipment and Supply of Essential Drugs (Irrespective of sanction)

17.2 Definition

Number of rural health care centres which are fully staffed, equipped with standard facilities and receiving continuous supply of essential drugs divided by the total number of rural health care centres in a given year. The sanctioned staffs in a rural health care centre (RHC) includes one health assistant (HA), one lady health visitor (LHV), five midwives (MW; four in the sub-centres), and one assistant or one watchman. Standard facilities equipped 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

18.1 Definition:

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

19.1 Definition:

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

20.1 Definition:

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

21.1 Definition:

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

22.1 Definition:

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

23.1 Definition:

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

24.1 Definition:

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 percent.

25. Number of Graduates by Specialization

25.1 Definition:

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.

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

26.1 Definition:

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.

27. Adult Literacy Rate

27.1 Definition:

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

28. Mean Years of Schooling per Person Aged 5 and Over

28.1 Definition:

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.

29. percentage of Female Student by Level

29.1 Definition:

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

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

30.1 Definition:

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.

31. Total Labour Force

31.1 Definition:

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.

32. Labour Force Participation Rate (LFPR)

32.1 Definition:

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.

33. Unemployment Rate

33.1 Definition:

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

34. Labour Force by Education Level

34.1 Definition:

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; and
- (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

35. Employed Population by Occupation and Industry Group

35.1 Definition:

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 –

<u>Sector</u>	<u>Major Groupings</u>
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.

36. Employed Population by Employment Status

36.1 Definition:

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.

37. Establishments and their Growth by Ownership

37.1 Definition:

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.

38. Coverage of Social Security Scheme for Registered Employed Persons

38.1 Definition:

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 Benefit;
	Temporary Disability Benefit; Permanent Disability
	Pension; and Survivors Pension.

39. Real GDP and Growth Rate of GDP

39.1 Definition:

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.

40. Real GDP per Head and Growth Rate

40.1 Definition:

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

41. Food Availability per Head

41.1 Definition:

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

42. Investment, Exports and Imports

42.1 Definition:

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.

43. Public Expenditure by Sector

43.1 Definition:

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

44. Consumers' Price Index

44.1 Definition:

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 GPI are selected on the basis of their importance and representativeness for the respective groups.

45. **Cultivated Land per Head**

45.1 **Definition:**

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.

46. **Land Use (under Cultivation, Forest and Others)**

46.1 **Definition:**

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.

47. **Number of motor vehicles per 1000 Population**

47.1 **Definition:**

The officially registered motor vehicles of various types, motor cycles, passenger cars and commercial vehicles but excluding trailers and farm tractors.

48. **Energy Consumption by Type**

48.1 **Definition:**

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).

49. Railway Traffic Passenger Miles

49.1 Definition:

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

50. Railway Traffic Cargo-Ton Miles

50.1 Definition:

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.

51. Daily Newspaper: Number of Circulation

51.1 Definition:

Total number of daily newspapers circulated in a day.

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

52.1 Definition:

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.

53. Number of Telephones and Telephones per 1,000 Inhabitants

53.1 Definition:

Number of telephones lines subscribed.

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

54.1 Definition:

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 centers.

HANDBOOK ON HUMAN RESOURCES DEVELOPMENT INDICATORS, 2000