

8. List of Appendices

Table (A.1)

Numbers of (Basic and secondary) Schools, pupils and Teachers for Sudan 1980-2009

Year	Basic Schools			Secondary Schools		
	Number of Basic Schools	Number of Pupils in basic Schools	Number of teachers in basic Schools	Number of Secondary Schools	Number of Pupils in Secondary Schools	Number of teachers in Secondary Schools
1979/80	7117	1693733	44174	313	130395	3906
1980/81	7629	1742993	56106	288	115692	4296
1981/82	7805	1850090	59113	300	124200	4847
1982/83	8471	1910330	60693	318	131706	4689
1983/84	8325	1934090	61706	337	140018	4692
1984/85	8499	1994774	60969	375	149300	4372
1985/86	8613	2100403	66295	391	161285	5136
1986/87	8962	2208175	75733	389	170341	7364
1987/88	9412	2321922	71609	406	227976	6946
1988/89	9873	2414111	69690	515	230255	8224
1989/90	10169	2475039	73477	517	232557	8215
1990/91	10474	2549289	77518	518	234882	8132
1991/92	10802	2649714	82801	520	243419	7882
1992/93	11379	2932304	92769	547	270629	9920
1993/94	12515	3049596	88130	580	289573	9721
1994/95	12515	3197476	83731	614	317261	9393
1995/96	10713	2963688	95262	1206	469241	12121
1996/97	10969	3052598	99072	1422	464548	13211
1997/98	11278	3144175	104025	1648	459902	14399
1998/99	11982	3238500	109226	1517	455302	15838
1999/00	11923	3335655	115779	1694	450748	17421
2000/01	12539	3451611	125391	1835	437461	19783
2001/02	12085	3537279	128483	1935	454925	19875
2002/03	12463	3758694	132041	1863	486691	21266
2003/04	11541	3966944	136401	1642	526169	22951
2004/05	14071	4299737	141315	2268	611579	32917
2005/06	15089	4713381	143327	2877	569735	34222
2006/07	15907	4785952	145999	3224	602912	38953
2007/08	18095	5253117	155023	3478	647860	39874
2008/09	18052	5800829	161345	3455	753070	43029

Source: Federal Ministry of Education, educational statistics department, Khartoum, various reports.

Table (A.2)**The Number of Hospital, Beds and Dispensaries in Sudan (1980 – 2009)**

Year	Number of Hospital (Ho)	Number of Beds (Be)	Number Dispensaries (Nu)	Population(000)
1979/80	158	17205	887	193874
1980/81	160	1730.0	790	200075
1981/82	169	17483	818	206574
1982/83	171	17774	856	213127
1983/84	177	18153	879	219408
1984/85	190	18594	977	225195
1985/86	194	19121	1054	230376
1986/87	200	18099	1145	235062
1987/88	204	17796	1179	239526
1988/89	209	18507	1224	244167
1989/90	216	19440	1236	249269
1990/91	216	20130	1271	254927
1991/92	223	20430	1344	261053
1992/93	240	21020	1346	267525
1993/94	253	21820	1400	274146
1994/95	261	22440	1478	280773
1996	274	22600	1453	287364
1997	285	22650	1468	293966
1998	304	22720	1482	300624
1999	309	23100	1438	307410
2000	315	23070	1475	314367
2001	332	23160	1489	321563
2002	334	23820	1486	331325
2003	351	23970	1612	336480
2004	357	24780	1432	345120
2005	375	26090	1226	353980
2006	378	26570	1385	363070
2007	395	27460	1224	372700
2008	407	28380	2280	391540
2009	409	29100	1877	405220
2010	438	30593	2079	4180600

Source: Own Calculation Based on Data Obtained from Central Bureau of Statistics and Federal Ministry of Health(various Reports).

Table (A.3)**The Number of Hospitals, Beds and Dispensaries per100,000 population 1980 - 2009**

Year	Number of Hospital (Ho)	Number of Beds (Be)	Number Dispensaries (Di)
1980	0.08	99.4	0.46
1981	0.08	97.8	0.39
1982	0.08	97.0	0.40
1983	0.08	86.4	0.40
1984	0.08	83.0	0.40
1985	0.08	82.6	0.43
1986	0.08	83.0	0.46
1987	0.09	77.0	0.49
1988	0.09	74.3	0.49
1989	0.09	82.0	0.50
1990	0.09	82.6	0.50
1991	0.08	81.6	0.50
1992	0.09	81.7	0.51
1993	0.09	82.5	0.50
1994	0.09	82.6	0.51
1995	0.09	80.9	0.53
1996	0.10	78.9	0.51
1997	0.10	70.0	0.50
1998	0.10	76.2	0.49
1999	0.10	74.2	0.47
2000	0.10	72.6	0.47
2001	0.10	72.7	0.46
2002	0.10	71.3	0.45
2003	0.10	71.8	0.48
2004	0.10	73.7	0.41
2005	0.11	73.2	0.35
2006	0.10	73.6	0.38
2007	0.11	72.6	0.33
2008	0.10	72.3	0.58
2009	0.05	82.0	0.46

Source: Own Calculation Based on Data Obtained from Central Bureau of Statistics and Federal Ministry of Health(various Reports).

Table (A.4)**Number of Doctors, Specialist per100, 000 populations and Nurses per Doctor 1980 - 2009**

Year	(Do) Number of Doctors	(Sp) number of specialist	(Nu) Number of Nurses per Doctor
1980	12.3	2.5	6.0
1981	12.3	2.5	6.2
1982	12.1	3	6.4
1983	10.7	2.7	6.4
1984	10.6	2.5	6.5
1985	11.9	2.7	5.9
1986	11.6	2.4	6.9
1987	10.5	2.2	6.7
1988	10.4	2.3	6.4
1989	10.4	2.5	6.5
1990	10.5	2.3	6.9
1991	9.7	2.1	6.9
1992	7.3	1.6	8.8
1993	8.1	2.1	7.6
1994	12.1	2.1	5.2
1995	9.0	2.2	7.0
1996	9.2	2.1	6.4
1997	11.9	2.2	4.8
1998	15.1	2.3	3.9
1999	14.6	2.4	4.1
2000	16.1	2.6	3.5
2001	17.4	3.0	2.9
2002	17.6	3.0	2.9
2003	18.4	3.1	2.8
2004	20.0	3.3	2.6
2005	22.6	3.6	2.2
2006	24.2	4.5	2.1
2007	25.6	4.6	1.9
2008	22.1	4.4	2.2
2009	35.0	4.7	1.6

Source: Own Calculation Based on Data Obtained from Central Bureau of Statistics and Federal Ministry of Health(various Reports).

Table (A.5)

Rates of Life Expectancy at Birth, Infant Mortality and Under-Five Mortality per 1,000 Populations 1980 - 2009

Year	(1)	(2)	(3)
	(Le) life expectancy at birth	(In) infant mortality rate	(M) Under-five mortality rate
1980	49.30	87.2	140.7
1981	49.68	86.9	140.2
1982	50.03	86.2	139.0
1983	50.35	85.2	137.2
1984	50.66	84.2	135.3
1985	50.95	83.1	133.3
1986	51.24	81.9	131.1
1987	51.54	80.9	129.3
1988	51.85	79.9	127.5
1989	52.18	78.9	125.8
1990	52.53	78.4	124.9
1991	52.88	77.7	123.6
1992	53.23	77.3	122.8
1993	53.57	76.6	121.5
1994	53.92	75.7	120.0
1995	54.29	75.2	119.0
1996	54.71	74.4	117.6
1997	55.19	73.8	116.5
1998	55.74	73.3	115.6
1999	56.34	72.5	114.3
2000	56.97	72.1	113.5
2001	57.60	71.5	112.5
2002	58.19	71.0	111.5
2003	58.71	70.3	110.3
2004	59.16	69.8	109.5
2005	59.55	69.3	108.5
2006	59.88	68.6	107.2
2007	60.18	67.9	106.1
2008	60.48	67.7	105.7
2009	60.79	66.9	104.2

Source: Column (1) from Abdelmawla (2009), Ali (2006). Column (2) and (3) from Level & Trends in Child Mortality. Report 2011. Estimates Developed by the UN Inter-agency Group for Child Mortality Estimation (UNICEF, WHO, World Bank, UN DESA, UNPD).

Table (A.6)**The Values of Health Index in Sudan 1980 - 2009**

year	life expectancy at birth	Health Index (HI)
1980	49.30	0.41
1981	49.68	0.41
1982	50.03	0.42
1983	50.35	0.42
1984	50.66	0.43
1985	50.95	0.43
1986	51.24	0.44
1987	51.54	0.44
1988	51.85	0.45
1989	52.18	0.45
1990	52.53	0.46
1991	52.88	0.46
1992	53.23	0.47
1993	53.57	0.48
1994	53.92	0.48
1995	54.29	0.49
1996	54.71	0.50
1997	55.19	0.50
1998	55.74	0.51
1999	56.34	0.52
2000	56.97	0.53
2001	57.60	0.54
2002	58.19	0.55
2003	58.71	0.56
2004	59.16	0.57
2005	59.55	0.58
2006	59.88	0.58
2007	60.18	0.59
2008	60.48	0.59
2009	60.79	0.60

Source: Own calculation based on various source: Column (1) obtained from Abdelmawla (2009), Ali (2006), obtained from Level & Trends in Child Mortality Report 2011. Estimates Developed by the UN Inter-agency Group for Child Mortality Estimation (UNICEF, WHO, World Bank, UN DESA, UNPD 2011).

Table (A.7)**Components of Health Physical Infrastructure Per100,000 Populations 1980 – 2009**

Year	(Ho) Number of Hospital	(Be) Number of Beds	(Di) Number Dispensaries
1980	0.08	99.4	0.46
1981	0.08	97.8	0.39
1982	0.08	97.0	0.40
1983	0.08	86.4	0.40
1984	0.08	83.0	0.40
1985	0.08	82.6	0.43
1986	0.08	83.0	0.46
1987	0.09	77.0	0.49
1988	0.09	74.3	0.49
1989	0.09	82.0	0.50
1990	0.09	82.6	0.50
1991	0.08	81.6	0.50
1992	0.09	81.7	0.51
1993	0.09	82.5	0.50
1994	0.09	82.6	0.51
1995	0.09	80.9	0.53
1996	0.10	78.9	0.51
1997	0.10	70.0	0.50
1998	0.10	76.2	0.49
1999	0.10	74.2	0.47
2000	0.10	72.6	0.47
2001	0.10	72.7	0.46
2002	0.10	71.3	0.45
2003	0.10	71.8	0.48
2004	0.10	73.7	0.41
2005	0.11	73.2	0.35
2006	0.10	73.6	0.38
2007	0.11	72.6	0.33
2008	0.10	72.3	0.58
2009	0.10	82.0	0.46

Source: Own calculation based on data obtained from Statistical Department, Federal Ministry of Health and Central Bureau of Statistics.

Table (A.8)**The Component of Health Manpower per100,000 Populations 1980 - 2009**

Year	(Do) Number of Doctors	(Sp) Number of Specialist	(Nu) Number of Nurses per Doctor
1980	12.3	2.5	6.0
1981	12.3	2.5	6.2
1982	12.1	3	6.4
1983	10.7	2.7	6.4
1984	10.6	2.5	6.5
1985	11.9	2.7	5.9
1986	11.6	2.4	6.9
1987	10.5	2.2	6.7
1988	10.4	2.3	6.4
1989	10.4	2.5	6.5
1990	10.5	2.3	6.9
1991	9.7	2.1	6.9
1992	7.3	1.6	8.8
1993	8.1	2.1	7.6
1994	12.1	2.1	5.2
1995	9.0	2.2	7.0
1996	9.2	2.1	6.4
1997	11.9	2.2	4.8
1998	15.1	2.3	3.9
1999	14.6	2.4	4.1
2000	16.1	2.6	3.5
2001	17.4	3.0	2.9
2002	17.6	3.0	2.9
2003	18.4	3.1	2.8
2004	20.0	3.3	2.6
2005	22.6	3.6	2.2
2006	24.2	4.5	2.1
2007	25.6	4.6	1.9
2008	22.1	4.4	2.2
2009	35.0	4.7	1.6

Source: Own calculations based on data obtained from, Federal Ministry of Health, Statistical Department and Central Bureau of Statistics.

Table (A.9)**The Values of the Health Attainment Indicators during 1980 - 2009**

Year	(Le) life expectancy at birth	(In) infant mortality rate	(M) Under-five mortality rate
1980	49.30	87.2	140.7
1981	49.68	86.9	140.2
1982	50.03	86.2	139.0
1983	50.35	85.2	137.2
1984	50.66	84.2	135.3
1985	50.95	83.1	133.3
1986	51.24	81.9	131.1
1987	51.54	80.9	129.3
1988	51.85	79.9	127.5
1989	52.18	78.9	125.8
1990	52.53	78.4	124.9
1991	52.88	77.7	123.6
1992	53.23	77.3	122.8
1993	53.57	76.6	121.5
1994	53.92	75.7	120.0
1995	54.29	75.2	119.0
1996	54.71	74.4	117.6
1997	55.19	73.8	116.5
1998	55.74	73.3	115.6
1999	56.34	72.5	114.3
2000	56.97	72.1	113.5
2001	57.60	71.5	112.5
2002	58.19	71.0	111.5
2003	58.71	70.3	110.3
2004	59.16	69.8	109.5
2005	59.55	69.3	108.5
2006	59.88	68.6	107.2
2007	60.18	67.9	106.1
2008	60.48	67.7	105.7
2009	60.79	66.9	104.2

Source: Column (1) obtained from Abdelmawla (2009), Ali (2006). Column (2) and (3) obtained from Level & Trends in Child Mortality Report 2011. Estimates Developed by the UN Inter-agency Group for Child Mortality Estimation (UNICEF, WHO, World Bank, UN DESA, UNPD 2011).

Table (A.10)**Education Attainment Index in Sudan during 1980 - 2009**

Year	Adult literacy Rate	Education Attainment Index
1980	33.3	0.33
1981	34.2	0.34
1982	35.1	0.35
1983	36.3	0.36
1984	37.0	0.37
1985	38.4	0.38
1986	39.7	0.40
1987	40.9	0.41
1988	42.5	0.43
1989	42.5	0.43
1990	43.0	0.43
1991	43.0	0.43
1992	43.4	0.43
1993	43.8	0.44
1994	44.8	0.45
1995	46.1	0.46
1996	49.0	0.49
1997	53.3	0.53
1998	55.7	0.56
1999	56.9	0.57
2000	57.8	0.58
2001	58.8	0.59
2002	59.9	0.60
2003	59.0	0.59
2004	60.9	0.61
2005	60.9	0.61
2006	60.9	0.61
2007	60.9	0.61
2008	62.0	0.62
2009	65.0	0.65

Source: Abdelmawla (2009), Federal Ministry of Education, Adult Education, Khartoum - various reports

Table (A.11)**The Gross Enrollment Rate Index in Sudan during 1980 - 2009**

Year	Gross Enrollment Rate	Gross Enrollment Rate Index
1980	22.6	0.23
1981	23.0	0.23
1982	23.4	0.23
1983	23.3	0.23
1984	23.3	0.23
1985	24.0	0.24
1986	24.0	0.24
1987	24.5	0.25
1988	26.0	0.26
1989	27.7	0.28
1990	29.0	0.29
1991	30.5	0.31
1992	31.0	0.31
1993	31.0	0.31
1994	31.0	0.31
1995	32.0	0.32
1996	33.3	0.33
1997	34.0	0.34
1998	34.0	0.34
1999	34.0	0.34
2000	34.0	0.34
2001	34.0	0.34
2002	36.0	0.36
2003	38.0	0.38
2004	37.0	0.37
2005	37.3	0.37
2006	37.8	0.38
2007	38.1	0.38
2008	38.5	0.39
2009	38.9	0.39

Source: Own calculations based on data in appendix

Table (A.12)**The Education Index in Sudan (1980 – 2009)**

Year	Education Attainment Index	Gross Enrollment Rate Index	Education Index
1980	0.33	0.23	0.30
1981	0.34	0.23	0.30
1982	0.35	0.23	0.31
1983	0.36	0.23	0.32
1984	0.37	0.23	0.32
1985	0.38	0.24	0.34
1986	0.40	0.24	0.34
1987	0.41	0.25	0.35
1988	0.43	0.26	0.37
1989	0.43	0.28	0.38
1990	0.43	0.29	0.38
1991	0.43	0.31	0.39
1992	0.43	0.31	0.39
1993	0.44	0.31	0.40
1994	0.45	0.31	0.40
1995	0.46	0.32	0.41
1996	0.49	0.33	0.44
1997	0.53	0.34	0.47
1998	0.56	0.34	0.48
1999	0.57	0.34	0.49
2000	0.58	0.34	0.50
2001	0.59	0.34	0.51
2002	0.60	0.36	0.52
2003	0.59	0.38	0.52
2004	0.61	0.37	0.53
2005	0.61	0.37	0.53
2006	0.61	0.38	0.53
2007	0.61	0.38	0.53
2008	0.62	0.39	0.54
2009	0.65	0.39	0.56

Source: Own calculations based on data in appendix

Table (A.13)**The Component of Education Infrastructure Index (1980 – 2009)**

Year	Number of Educational Institutions per 100,000 populations	Pupil / Teachers per Ratio
1980	3.83	35
1981	3.96	30
1982	3.92	28
1983	4.12	29
1984	3.95	30
1985	3.94	33
1986	3.91	31
1987	3.98	28
1988	4.10	30
1989	4.25	32
1990	4.29	32
1991	4.31	32
1992	4.34	33
1993	4.46	31
1994	4.78	36
1995	4.68	34
1996	4.15	33
1997	4.22	33
1998	4.30	34
1999	4.39	27
2000	4.33	23
2001	4.47	25
2002	4.23	25
2003	4.26	27
2004	3.82	26
2005	4.62	26
2006	4.95	25
2007	5.13	24
2008	5.51	26
2009	5.31	27

Source: Own calculations based on data obtained from educational statistics - Khartoum – various reports.

Table (A.14)**Social Development Index (SDI) in Sudan (1980 – 2009)**

Year	Health Index (HI)	Education Index (EI)	Social Development Index (SDI)
1980	0.41	0.30	0.36
1981	0.41	0.30	0.36
1982	0.42	0.31	0.37
1983	0.42	0.32	0.37
1984	0.43	0.32	0.38
1985	0.43	0.34	0.39
1986	0.44	0.34	0.39
1987	0.44	0.35	0.40
1988	0.45	0.37	0.41
1989	0.45	0.38	0.42
1990	0.46	0.38	0.42
1991	0.46	0.39	0.43
1992	0.47	0.39	0.43
1993	0.48	0.40	0.44
1994	0.48	0.40	0.44
1995	0.49	0.41	0.45
1996	0.50	0.44	0.47
1997	0.50	0.47	0.49
1998	0.51	0.48	0.50
1999	0.52	0.49	0.51
2000	0.53	0.50	0.52
2001	0.54	0.51	0.53
2002	0.55	0.52	0.54
2003	0.56	0.52	0.54
2004	0.57	0.53	0.55
2005	0.58	0.53	0.56
2006	0.58	0.53	0.56
2007	0.59	0.53	0.56
2008	0.59	0.54	0.57
2009	0.60	0.56	0.58

Source: Own calculations based on data on appendix (A.6) and (A.12)

Table (A.15)

Real GDP, GDP Per capita, Health and Public Education Public Expenditure in Sudan (1980-2009) in (Millions SDG)

Year	Real GDP	GDP Per capita	Health Expenditure	Education Expenditure
1980	6	0.22	0.04	0.14
1981	7	0.26	0.04	0.18
1982	7	0.36	0.07	0.22
1983	7	0.47	0.07	0.24
1984	7	0.58	0.06	0.26
1985	6	0.74	0.07	0.24
1986	7	0.96	0.10	0.31
1987	8	1.71	0.13	0.41
1988	8	2.15	0.17	0.54
1989	8	3.69	0.22	0.71
1990	8	4.77	0.29	0.94
1991	8	8.10	0.38	1.23
1992	9	17.22	0.50	1.62
1993	9	37.60	1.63	3.22
1994	10	72.47	5.35	6.40
1995	10	151.74	17.51	12.73
1996	11	375.90	57.33	25.33
1997	12	563.71	51.57	33.40
1998	13	743.69	49.92	40.74
1999	14	892.27	92.40	46.17
2000	15	1083.06	117.03	189.45
2001	16	1274.04	123.24	261.59
2002	17	1457.36	137.40	291.64
2003	18	1656.38	189.18	376.19
2004	19	1991.23	283.28	634.95
2005	20	2421.24	529.20	797.00
2006	22	2707.24	895.29	1095.23
2007	23	3215.38	866.99	1131.72
2008	23	3460.99	1782.26	1305.61
2009	25	3630.00	2121.20	1466.50

Source : Central Bureau of Statistics and Federal Ministry of Finance and National Economy in Sudan,(various Reports).