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Appendix A1: Capital Costs

Calculation of capital costs of Ramghat PHC (in Nepalese Rupees, 2001 prices, Discount rate 5%)

Inputs	Purchase Price	Year of Purchase	Useful life	Present value*	Annualization factor	Annual cost	8 month cost	Allocation Proportion	8 month cost for TB
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)/(6)	(8)=(7)2/3	(9)	(10)=(8)(9)
Treatment Unit									
Space (10' x 8')				1200		14400.00	9600.00	0.24	2304.00
Land									
Wooden Table	2000	2000	5	2100.00	4.329	485.10	323.40	0.24	77.62
Wooden Chair	1200	2000	5	1260.00	4.329	291.06	194.04	0.24	46.57
Wooden Bench	1000	1996	5	1276.28	4.329	294.82	196.55	0.24	47.17
Steel Shelve	5000	1997	10	6077.53	7.722	787.04	524.69	0.24	125.93
Furniture Total	9200			10713.81		1858.02	1238.68		297.28
Treatment Unit Total	9200			11913.81		16258.02	10838.68		2601.28
Laboratory Unit									
Space (10' x 8')				1200.00		14400.00	9600.00	0.24	2304.00
Wooden Table (1)	2000	2000	5	2100.00	4.329	485.10	323.40	0.24	77.62
Wooden Chair (1)	1200	2000	5	1260.00	4.329	291.06	194.04	0.24	46.57
Steel Shelve	5000	1997	10	6077.53	7.722	787.04	524.69	0.24	125.93
Steel Rack	3500	1995	10	4690.33	7.722	607.40	404.93	0.24	97.18
Furniture Total	11700			15327.87		2170.60	11047.07		347.30
Microscope (Binocular)	80000	1996	5	102102.53	4.329	23585.71	15723.80	0.24	3773.71
Laboratory Unit Total	91700			118630.39		40156.31	36370.87		6425.01
Radiology Unit									
Pharmacy Unit									
Space (6'x8')				720		8640.00	5760.00	1	5760.00
Wooden Table	2000	2000	5	2100.00	4.329	485.10	323.40	1	323.40
Wooden Chair	1200	2000	5	1260.00	4.329	291.06	194.04	1	194.04
Steel Shelve	5000	1997	10	6077.53	7.722	787.04	524.69	1	524.69
Water Filter	800	1997	8	972.41	7.722	125.93	83.95	1	83.95
Furniture Total	9000			10409.94		1689.13	1126.09		1126.09
Pharmacy Unit Total	9000			11129.94		10329.13	6886.09		6886.09
Grand Total	109900			141674.14		66743.46	54095.64		15912.38

Table was adapted from Pokhrel, S (1999)

* Present Value of capital Item was calculated using the relation, $P_t = P_o (1+r)^t$,

Where P_t = Present value, P_o = Purchase Price, r = Discount rate, t = number of years since the purchase of goods up to 2001.

Appendix A2: Capital Costs

Calculation of capital costs of Friends of Shanta Bhawan (in Nepalese Rupees, 2001 prices, Discount rate 5%)

Inputs	Purchase Price	Year of Purchase	Useful life	Present Value*	Annualization factor	Annual cost	8 month cost	Allocation %	8 month cost for TB
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)/(6)	(8)=(7)2/3	(9)	(10) =(8)(9)
Treatment Unit									
Space (10' x 12' ; 12'x12')				3000		36000	24000	0.08	1920
Steel Tables(2)	6000	1997	8	7293.04	6.463	1128.43	752.29	0.08	60.18
Steel Chair (3)	8100	1997	8	9845.60	6.463	1523.38	1015.59	0.08	81.25
Tables(2)	4400	1997	5	5348.23	4.329	1235.44	823.63	0.08	65.89
Wooden Chair (2)	1600	1996	5	2042.05	4.329	471.71	314.48	0.08	25.16
Steel Selves (2)	10000	1997	10	12155.06	7.722	1574.08	1049.39	0.08	83.95
Furniture Total	30100			36683.98		5933.05	3955.36		316.43
Treatment Unit Total	30100			39683.98		41933.05	27955.36		2236.43
Laboratory Unit									
Space (10' x 15')				1500.00		18000	12000.00	0.27	3240.00
Steel Table (2)	5400	1994	8	7598.34	6.463	1175.67	783.78	0.27	211.62
Chair (3)	6600	1994	8	9286.86	6.463	1436.93	957.95	0.27	258.65
Steel Selve (1)	4000	1994	10	5628.40	7.722	728.88	485.92	0.27	131.20
Bench	1200	1996	5	1531.54	4.329	353.79	235.86	0.27	63.68
Furniture Total	17200			24045.14	24.977	3695.26	2463.51		665.15
Microscope (Binocular)	80000	1996	5	102102.53	4.329	23585.71	15723.80	0.27	4245.43
Laboratory Unit Total	97200			127647.67		45280.97	30187.31		8150.57
Radiology Unit									
Pharmacy Unit									
Space (10' x 15')				2000.00		24000	16000.00	1	16000
WoodenTable (ordinary)	800	1996	5	1021.03	4.329	235.86	157.24	1	157.24
Steel Table	3000	1997	8	3646.52	6.463	564.21	376.14	1	376.14
Steel Chair (3)	8100	1997	8	9845.60	6.463	1523.38	1015.59	1	1015.59
Wooden Chair (2)	1600	1996	5	2042.05	4.329	471.71	314.48	1	314.48
wooden stool (2)	300	1996	5	382.88	4.329	88.45	58.96	1	58.96
Fan	2000	1996	5	2552.56	4.329	589.64	393.10	1	393.10
Steel Selves (2)	10000	1997	10	12155.06	7.722	1574.08	1049.39	1	1049.39
Water Filter (2)	1600	1997	8	1944.81	6.463	300.91	200.61	1	200.61
Furniture Total	27400			33590.52		5348.25	3565.50		3565.50
Pharmacy Unit Total	27400			35590.52		29348.25	19565.50		19565.50
Grand Total	154700			202922.16		116562.26	77708.18		29952.50

* Present Value of capital Item was calculated using the relation, $P_t = P_o (1+r)^{-t}$, where P_t = Present value, P_o = Purchase Price, r = Discount rate, t = number of years since the purchase of goods up to 2001

Appendix A3: Capital Costs

Calculation of capital costs of Helping Hand Clinic, Nepal(in Nepalese Rupees, 2001 prices, Discount rate 5%)

Inputs	Purchase Price	Year of Purchase	Useful life	Present Value*	Annualiz	Annual cost	8 month Cost	Allocation Proportion	8 month cost for TB
					ation factor				
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)/(6)	(8)=(7)2/3	(9)	(10)=(8)/9
Treatment Unit									
Space(12, x 10', 12'x16')				3500.00		42000	28000	0.085	2380.00
Steel Table (2)	6000.00	2001	8	6000.00	6.463	928.36	618.91	0.085	52.61
Chair (2)	4000.00	2001	5	4000.00	4.329	924.00	616.00	0.085	52.36
Bench (3)	3600.00	2001	5	3600.00	4.329	831.60	554.40	0.085	47.12
Furniture Total				13600.00	15.121	2683.96	1789.31		152.09
Treatment Unit Total				17100.00		44683.96	29789.31		2532.09
Laboratory Unit									
Space(12' x 10')				1500.00		18000	12000.00	0.165	1980.00
Tables (2)	4000.00	2001	5	4000.00	4.329	924.00	616.00	0.165	101.64
Chair (2)	3600.00	2001	5	3600.00	4.329	831.60	554.40	0.165	91.48
Steel Stool (1)	650	1999	10	716.63	7.722	92.80	61.87	0.165	10.21
Wooden Stool (1)	250	1998	5	289.41	4.329	66.85	44.57	0.165	7.35
Furniture Total	900			8606.03		1915.26	1276.84		2190.68
Microscope (Binaclor)	98337	1997	5	119529.24	4.329	27611.28	18407.52	0.165	3037.24
Laboratory Unit Total	98337			128135.27		47526.54	31684.36		7207.92
Radiology Unit									
Space used(7'x12')				1500.00		18000.00	12000	0.27	3240.00
Table (1)	2500	2000	5	2625.00	4.329	606.38	404.25	0.27	109.15
Chair (1)	1200	2000	5	1260.00	4.329	291.06	194.04	0.27	52.39
Wooden Rack	900	2000	5	945.00	4.329	218.30	145.53	0.27	39.29
Furniture Total	4600			4830.00		1115.73	743.82		200.83
X-ray Machine	325000	2000	10	341250.00	7.722	44191.92	29461.28	0.27	7954.55
X-ray Grid Plate	11500	2000	10	12075.00	7.722	1563.71	1042.48	0.27	281.47
Equipment Total	336500			353325.00		45755.63	30503.76		8236.01
Radiology Unit Total	345700			716310.00		93742.73	62495.15		16873.69
Pharmacy Unit									
Space Used (8' x 10')				1400.00		16800	11200.00	1	16800.00
Wooden Table (1)	1200	1997	5	1458.61	4.329	336.94	224.63	1	336.94
Chair (1)	900	1997	5	1093.96	4.329	252.70	168.47	1	252.70
Bench (1)	800	1997	5	972.41	4.329	224.63	149.75	1	224.63
Steel Shelve	5000	1997	10	6077.53	7.722	787.04	524.69	1	787.04
Rack (1)	900	1997	5	1093.96	4.329	252.70	168.47	1	252.70
Water Filter	800	1997	8	972.41	6.463	150.46	100.30	1	150.46
Furniture Total	9600			11668.86		2004.47	1336.31		2004.47
Pharmacy Unit Total	9600			13068.86		18804.47	12536.31		18804.47
Total capital cost	453637			874614.13		204757.70	136505.13		45418.17

* Present Value of capital Item was calculated using the relation, $P_t = P_o (1+r)^{-t}$, Where P_t = Present value, P_o = Purchase Price, r = Discount rate, t = number of years since the purchase of goods up to 2001

Appendix A4: Capital Costs

Calculation of capital costs of Anam Nagar Poly Clinic and Research Center (in Nepalese Rupees, 2001 prices, Discount rate 5%)

Inputs	Purchase Price	Year of Purchase	Useful life	Present Value	Annualization factor	Annual cost	8 month Cost	Allocation Proportion	8 month cost for TB
Treatment Unit									
Space(8'x10')				1164.00		13968.00	9312	0.19	1769.2
Table(1)	2300	1999	5	2415.00	4.329	557.87	371.91	0.19	70.66
Chair (1)	1500	1999	5	1575.00	4.329	363.83	242.55	0.19	46.08
Bench	1200	1999	5	1260.00	4.329	291.06	194.04	0.19	36.87
Furniture Total	5000			5250.00	4.329	1212.75	808.50		153.6
Treatment Unit Total	5000			6414.00		15180.75	10929.00		1922.9
Laboratory Unit									
Space(8'x10')				1164.00		13968.00	9312.00	0.09	838.0
Table(3)	4500	1999	5	4961.25	4.329	1146.05	764.03	0.09	68.76
Chair (3)	3600	1999	5	3969.00	4.329	916.84	611.23	0.09	55.01
Shelve(1)	5500	1999	10	6063.75	7.722	785.26	523.50	0.09	47.12
Furniture Total	13600			14994.00		2848.15	1898.76		170.8
Microscope (Binacolor)	118209	1998	5	136841.69	4.329	31610.46	21073.64	0.09	1896.6
Laboratory Unit Total	131809			14994.00	4.329	31610.46	21073.64		2905.6
Radiology Unit									
Space(6'x10')				860.00		10320.00	6880.00	0.07	481.6
Table(1)	2300	1999	5	2535.75	4.329	585.76	390.51	0.07	27.34
Chair (1)	1200	1999	5	1323.00	4.329	305.61	203.74	0.07	14.26
Furniture Total	3500			3858.75		891.37	7474.25		523.2
X-ray Machine	360000	1999	10	396900.00	7.722	51398.60	34265.73	0.07	2398.6
Radiology Unit Total	363500			400758.75		63501.35	49214.23		3403.4
Pharmay Unit									
Space (8' x 8')				2000.00		24000.00	16000.00	0.1	1600.0
Table(1)	2300	1999	5	2535.75	4.329	585.76	390.51	0.1	39.05
Chair(1)	1200	1999	5	1323.00	4.329	305.61	203.74	0.1	20.37
Bench(2)	2400	1999	5	2646.00	4.329	611.23	407.48	0.1	40.75
Shelve(1)	5500	1999	10	6063.75	7.722	785.26	523.50	0.1	52.35
Water Filter	800	1999	8	882.00	6.463	136.47	90.98	0.1	9.10
Furniture Total	12200			13450.50					161.6
Pharmay Unit Total	12200			15450.50		26424.32	17616.22		1761.6
Total Capital cost	512509			437617.25		136716.88	98833.09		9993.5

* Present Value of capital Item was calculated using the relation, $P_t = P_o (1+r)^t$, where P_t = Present value, P_o = Purchase Price, r = Discount rate, t = number of years since the purchase of goods up to 2001

Appendix A5: Capital Costs

**Calculation of capital costs of Birendra Police Hospital (in Nepalese Rupees, 2001 prices,
Discount rate 5%)**

Inputs	Purchase Price	Year of Purchase	Useful life	Present Value	Annualization factor	Annual cost	8 month Cost	Allocation Proportion	8 month cost for TB
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(5)/(6)	(8)=(7)2/3	(9)	(10)=(8)/(9)
Treatment Unit									
Building (10'x10')	150000	1989	30	269378.45	15.372	17523.97	11682.65	0.055	642.55
Land (10' x 10')				29,200		29200.00	29200.00	0.055	1606.00
Table (3)	2200	2000	5	2310	4.329	533.61	355.74	0.055	19.57
Chair (3)	1600	2000	5	1680	4.329	388.08	258.72	0.055	14.23
Furniture Total	3800	4000		3990		921.69	614.46		33.80
Treatment Unit Total	153800			302,568		47645.66	41497.11		2282.34
Laboratory Unit									
Building	252000	1984	30	577588.62	15.372	37574.07	25049.38	0.055	1377.72
Land (12' x 14')				49056		49056.00	49056.00	0.055	2698.08
Table (1)	3000	2001	8	3000	6.463	464.18	309.45	0.055	17.02
Table (2)	3600	2001	5	3600	4.329	831.60	554.40	0.055	30.49
Chair (2)	2400	2001	5	2400	4.329	554.40	369.60	0.055	20.33
Shelve (1)	5500	2001	10	5500	7.722	712.25	474.83	0.055	26.12
Furniture Total				14500		2562.43	1708.29	0.055	93.96
Microscope (Binocular)	98377	1999	5	108460.64	4.329	25054.43	16702.96	0.055	918.66
Laboratory Unit Total	350377			749605.26		114246.94	76164.62		5088.41
Radiology Unit									
Building	330000	1984	30	756366.04	15.372	49204.14	32802.76	0.03	984.08
Land (20' x 11')				64240		64240	64240	0.03	1927.20
Furniture									
Steel Table (2)	6000	2001	8	6000	6.463	928.36	618.91	0.03	18.57
Table (3)	6600	2001	5	6600	4.329	1524.60	1016.40	0.03	30.49
Shelve (3)	15000	2001	10	15000	7.722	1942.50	1295.00	0.03	38.85
Furniture Total				27600	18.514	4395.46	2930.31		87.91
X-Ray Machine	360000	2000	10	378000	7.722	48951.05	32634.03	0.03	979.02
Radiology Total	690000			1226206		166790.65	132607.10		3978.21
Pharmacy Unit									
Building (10'x10')	150000	1989	30	269378.45	15.372	17523.97	11682.65	0.27	3154.31
Land (10' x 10')				29200		29200.00	29200.00	0.27	7884.00
Furniture								0.27	
Table (1)	2200	2000	5	2310	4.329	533.61	355.74	0.27	96.05
Chair (2)	1600	2000	5	1680	4.329	388.08	258.72	0.27	69.85
Bench (2)	1800	2000	5	1890	4.329	436.59	291.06	0.27	78.59
Shelve (1)	5500	2000	10	5775	7.722	747.86	498.58	0.27	134.62
Rack	5200	2000	5	5460	4.329	1261.26	840.84	0.27	227.03
Furniture Total	16300			17115		3367.41	2244.94		606.13
Pharmacy Unit Total	166300			315693.45		50091.37	43127.58		11644.45
Total Capital Cost	1360477			2,594,073		378774.63	293396.42		22993.42

Appendix B1: Material Costs

Calculation of Direct Material costs of Ramghat PHC(in Nepalese Rupees, 2001 prices)

Category	Unit	Qty Used	Unit Cost	Total Cost (8 month Cost)	Remarks
Treatment Unit		0	0	0	
Laboratory Unit					
Carbon Fusion Solution*	ml	447	0.15	67.05	
20% Sulphuric Acid*	ml	447	0.15	67.05	
0.1% Methylene Blue*	ml	447	0.08	35.76	
Imersion oil	ml	25	1.44	36	
Lab reagent total		1366		205.86	
Sputum container	num	149	3.65	543.85	
Slides	num	149	1.9	283.1	
Sputum container + Slides Total				826.95	
Diamond Pencil**	num	1	704	52.45	
Sputum Exam Request form	pgs	149	1.8	268.2	
TB Lab Registered	Pad	1	145	145	
Pens, ball point, black or blue ink	num	2	15	30	
Pens, ball point, red ink	num	1	15	15	
Lab related Stationary total				510.65	
Laboratory Total				1543.46	
Radiology Unit		0	0	0	
Pharmacy Unit					
Drug Cost					
TB Register	Pad	1	145	145	
TB Treatment Card	pgs	37	4.18	154.66	
TB Patient Card	pgs	37	4.18	154.66	
Case finding Report Form	pgs	8	1.8	14.4	
Treatment Outcome Form	pgs	8	1.8	14.4	
Sputum conversion Form	pgs	8	1.8	14.4	
Pharmacy Related Stationary Total			158.76	497.52	
Pharmacy Unit Total				497.52	
Total Direct Cost				2040.98	

* Chemical reagent was calculated on the basis of 3 ml per slide

** Since one diamond pencil can be used for more than 2000 slides, the proportion 0.352(704/2000) could reflect its approximate cost.

Appendix B2: Material Costs

Calculation of Material costs of Friends of Shanta Bhawan (in Nepalese Rupees, 2001 prices)

Category	Unit	Qty Used	Unit Cost	Total Cost (8 month Cost)	Remarks
Direct Cost					
Treatment Unit		0	0	0	
Laboratory Unit					
Carbon Fusion Solution*	ml	4869	0.15	730.35	
20% Sulphuric Acid*	ml	4869	0.15	730.35	
0.1% Methylene Blue*	ml	4869	0.08	389.52	
Immersion oil	ml	75	1.44	108	
Laboratory Reagent Total		14682	1.82	1958.22	
Sputum containers	num	1170	3.65	4270.5	
Slides	num	1170	1.9	2223	
Sputum containers + slides				6493.5	
Diamond Pencil**	num	1	704	411.84	
Sputum Exam Request form	pgs	1170	1.8	2106	
TB Lab Registered	Pad	2	145	290	
Pens, ball point, black or blue ink	num	2	15	30	
Pens, ball point, red ink	num	1	15	15	
Lab Related Stationary Total		2346	882.7	2852.84	
Laboratory Total				11304.56	
Radiology Unit (Does not exist)				0	
Pharmacy Unit					
Drug Cost					
TB Register	Pad	1	145	145	
TB Treatment Card	pgs	172	4.18	718.96	
TB Patient Card	pgs	172	4.18	718.96	
Case finding Report Form	pgs	8	1.8	14.4	
Treatment Outcome Form	pgs	8	1.8	14.4	
Sputum conversion Form	pgs	8	1.8	14.4	
Pharmacy Unit Related Stationary Total		369	158.76	1626.12	
Pharmacy Unit Total		369	158.76	1626.12	
Total Direct Cost				12930.68	

* Chemical reagent was calculated on the basis of 3 ml per slide

** Since one diamond pencil can be used for more than 2000 slides, the proportion 0.352(704/2000) could reflect its approximate cost.

Appendix B3: Material Costs

Calculation of Material costs of Helping Hands Clinic, Nepal(in Nepalese Rupees, 2001 prices)

Category	Unit	Qty Used	Unit Cost	Total Cost (8 month Cost)	Remarks
Direct Cost					
Treatment Unit		0	0	0	
Laboratory Unit					
Carbon Fusion Solution*	ml	1836	0.15	275.4	
20% Sulphuric Acid	ml	1836	0.15	275.4	
0.1% Methylene Blue*	ml	1836	0.08	146.88	
Immersion oil	ml	50	1.44	72	
Laboratory Reagent Total		5558		769.68	
Sputum container	num	612	3.65	2233.8	
Slides	num	612	1.9	1162.8	
Sputum container + slides				3396.6	
Diamond Pencil**	num	1	704	215	
Sputum Exam Request form	pgs	612	1.8	1101.6	
TB Lab Registered	Pad	1	145	145	
Pens, ball point, black or blue ink	num	2	15	30	
Pens, ball point, red ink	num	1	15	15	
Laboratory Related Stationary				1506.6	
Laboratory Total				5672.88	
Radiology Unit					
X-ray Film (Large)	Num	722	37.5	27075	
X-ray Film (Small)		0	0	0	
Chemical(Developer)	lit	48.7	62.96	3066.152	
Chemical(Fixer)	lit	26	62.96	1636.96	
Chemical Total				4703.112	
Radiology Unit Total				31778.112	
Pharmacy Unit					
Drug Cost					
TB Register	Pad	1	145	145	
TB Treatment Card	pgs	154	4.18	643.72	
TB Patient Card	pgs	154	4.18	643.72	
Case finding Report Form	pgs	8	1.8	14.4	
Treatment Outcome Form	pgs	8	1.8	14.4	
Sputum conversion Form	pgs	8	1.8	14.4	
Pharmacy Unit Related Stationary Total				1475.64	
Pharmacy Unit Total				1475.64	
Total Direct Cost				38926.632	

* Chemical reagent was calculated on the basis of 3 ml per slide

** Since one diamond pencil can be used for more than 2000 slides, the proportion 0.352(704/2000) could reflect its approximate cost.

Appendix B4: Material Costs

Calculation of Material costs of Birendra Police Hospital(in Nepalese Rupees, 2001 prices)

Category	Unit	Qty Used	Unit Cost	Total Cost (8 month Cost)	Remarks
Direct Cost					
Treatment Unit		0	0	0	
Laboratory Unit					
Carbon Fusion Solution*	ml	2355	0.15	353.25	
20% Sulphuric Acid*	ml	2355	0.15	353.25	
0.1% Methylene Blue*	ml	2355	0.08	188.4	
Immersion oil	ml	50	1.44	72	
Laboratory Reagent Total				966.9	
Sputum container	num	785	3.65	2865.25	
Slides	num	785	1.9	1491.5	
Sputum container + slides				4356.75	
Diamond Pencil**	num		704	215	
Sputum Exam Request form	pgs	785	1.8	1413	
TB Lab Registered	Pad	1	145	145	
Pens, ball point, black or blue ink	num	2	15	30	
Pens, ball point, red ink	num	1	15	15	
Laboratory Related Stationary Total				1818	
Laboratory Total				7141.65	
Radiology Unit					
X-ray Film (Large)	num	260	38	9880	
X-ray Film (Small)		0	0	0	
Chemical (Developer)	lit	18	64	1152	
Chemical (Fixer)	lit	9	64	576	
Chemical Total				1728	
Radiology Unit Total				11608	
Pharmacy Unit					
Drug Cost					
TB Register	Pad	1	145	145	
TB Treatment Card	pgs	65	4.18	271.7	
TB Patient Card	pgs	65	4.18	271.7	
Case finding Report Form	pgs	8	1.8	14.4	
Treatment Outcome Form	pgs	8	1.8	14.4	
Sputum conversion Form	pgs	8	1.8	14.4	
Pharmacy Unit Total				731.6	
Total				19481.25	

* Chemical reagent was calculated on the basis of 3 ml per slide

** Since one diamond pencil can be used for more than 2000 slides, the proportion $0.352(704/2000)$ could reflect its approximate cost.

Appendix B5: Material Costs

Calculation of Material costs of Anam Nagar Poly Clinic and Research Center (in Nepalese Rupees, 2001 prices)

Category	Unit	Qty Used	Unit Cost	Total Cost (8 month Cost)	Remarks
Direct Cost					
Treatment Unit		0	0	0	
Laboratory Unit					
Carbon Fusion Solution*	ml	504	0.15	75.6	
20% Sulphuric Acid*	ml	504	0.15	75.6	
0.1% Methylene Blue*	ml	504	0.08	40.32	
Immersion oil	ml	125	1.44	180	
Laboratory Reagent Total				371.52	
Sputum container	num	168	3.65	613.2	
Slides	num	168	1.9	319.2	
Sputum container + Slides				932.4	
Diamond Pencil**	num	1	704	59	
Sputum Exam Request form	pgs	168	1.8	302.4	
TB Lab Registered	Pad	1	145	145	
Pens, ball point, black or blue ink	num	2	15	30	
Pens, ball point, red ink	num	1	15	15	
Lab Related Stationary Total				551.4	
Laboratory Total				1855.32	
Radiology Unit					
X-ray Film (Large)	num	44	40	1760	
X-ray Film (Small)		0	0	0	
Chemical (Developer)	lit	5	63	200	
Fixer	lit	2.5	63	157.5	
Chemical Total				357.5	
Radiology Unit Total				2117.5	
Pharmacy Unit					
Drug Cost					
TB Register	Pad	1	145	145	
TB Treatment Card	pgs	11	4.18	45.98	
TB Patient Card	pgs	11	4.18	45.98	
Case finding Report Form	pgs	8	1.8	14.4	
Treatment Outcome Form	pgs	8	1.8	14.4	
Sputum conversion Form	pgs	8	1.8	14.4	
Pharmacy Unit Related Stationary				280.16	
Pharmacy Unit Total				280.16	
Total Direct Cost				4252.98	

* Chemical reagent was calculated on the basis of 3 ml per slide

** Since one diamond pencil can be used for more than 2000 slides, the proportion $0.352(704/2000)$ could reflect its approximate cost.

Appendix B6: Material Costs

Calculation of Allocation Proportion for Indirect Material Cost of Various DOTS Centers

DOTS Centers	Ramghat PHC		Friends of Shanta Bhawan		Helping Hands		Birendra Police Hospital		Anam Nagar Poly Clinic	
	No. of visits	Proportion of Visits	No. of visits	Proportion of Visits	No. of visits	Proportion of Visits	No. of visits	Proportion of Visits	No. of visits	Proportion of Visits
Treatment Unit	202	0.09	1933	0.12	1110	0.08	894	0.10	267	0.18
Laboratory Unit	202	0.09	1933	0.12	1110	0.08	894	0.10	267	0.18
Radiology Unit	0	0.00	0	0.00	465	0.04	260	0.03	112	0.08
Pharmacy Unit	1964	0.83	11688	0.75	10526	0.80	6880	0.77	802	0.55
Total	2368	1.00	15554	1.00	13211	1.00	8928	1.00	1448	1.00

	Total patient registered	Total TB visits to Treatment center	Proportion of TB and (TB and other) cases
Ramghat PHC	852	202	0.24
Friends of Shanta Bhawan	47875	1933	0.04
Helpng Hands	12957	1110	0.09
Birendra Police Hospital	4983	894	0.18
Anam Nagar Poly Clinic	1434	267	0.19

Appendix B7: Material Costs

Calculation of Administration Related indirect Material costs of Various DOTS Centers (in Nepalese Rupees, 2001 prices)

	Annual cost	8 month cost	Allocation Proportion*	8 month cost for TB	8 month cost to TB			
					Treatment Unit	Laboratory Unit	Radiology Unit	Pharmacy Unit
Ramghat PHC								
Allocation Proportion**					0.09	0.09	0	0.82
Telephone	5000	3333.33	0.24	800	300.00	300.00	0.00	2733.33
Stationary/other	7000	4666.67	0.24	1120	100.80	100.80	0.00	918.40
Printing/ Photocopy	4000	2666.67	0.24	640	57.60	57.60	0.00	524.80
Miscellaneous	1500	1000.00	0.24	240	21.60	21.60	0.00	196.80
Total	17500	11666.67		0	480.00	480.00	0.00	4373.33
Friends of Shanta Bhawan								
Allocation proportion					0.12	0.12	0	0.76
Telephone	18000	12000.00	0.04	480.00	57.60	57.60	0.00	364.80
Stationary/other	67815	45210.00	0.04	1808.40	217.01	217.01	0.00	1374.38
Miscellaneous	25556	17037.33	0.04	681.49	81.78	81.78	0.00	517.93
Total	111371	74247.33		2969.89	356.39	356.39	0.00	2257.12
Helping Hands								
Allocation Proportion					0.08	0.08	0.04	0.8
Telephone	20000	13333.33	0.09	1200.00	96.00	96.00	48.00	960.00
Stationary/other	45000	30000.00	0.09	2700.00	216.00	216.00	108.00	2160.00
Miscellaneous	35000	23333.33	0.09	2100.00	168.00	168.00	84.00	1680.00
Total	100000	66666.67		6000.00	480.00	480.00	240.00	4800.00
Birendra Police Hospital								
Allocation Proportion				0.00	0.09	0.09	0.03	0.79
Telephone	18000	12000.00	0.18	2160.00	194.40	194.40	64.80	1706.40
Stationary/other	75000	50000.00	0.18	9000.00	810.00	810.00	270.00	7110.00
Total	93000	62000.00		11160.00	1004.40	1004.40	334.80	8816.40
Anam Nagar Poly Clinic								
Allocation Proportion					0.18	0.18	0.08	0.56
Telephone	12000	8000.00	0.19	1520.00	273.60	273.60	121.60	851.20
Stationary/other	20000	13333.33	0.19	2533.33	456.00	456.00	202.67	1418.67
Miscellaneous	25000	16666.67	0.19	3166.67	570.00	570.00	253.33	1773.33
Total	57000	38000.00		7220.00	1299.60	1299.60	577.60	4043.20

*This proportion was calculated using TB and (TB+ other) cases to allocate administrative cost to different units.

**This proportion was used to allocate 8 months administrative cost for TB to different units on the basis of patients' visits ratio of particular unit to total TB patients' visits

Appendix B8: Material Costs

Calculation of Building Related indirect Material costs of Various DOTS Centers (in Nepalese Rupees, 2001 prices)

	Area occupied (sq ft)	Building maintenance cost/sqft/year	Water and Electricity cost/sqft/year	Annual cost		8 month cost for TB		8 month cost for TB		Building Maintenance and water and Elec. Total	
				Building and maintenance	Water and electricity	Building and maintenance	Water and electricity	Allocation proportion	Building maintenance		Water and electricity
Ramghat PHC											
Treatment Unit	80	0	7.81	0	624.8	0	416.53	0.24	0	99.97	99.97
Laboratory Unit	80	0	7.81	0	624.8	0	416.53	0.24	0	99.97	99.97
Radiology Unit	0	0	7.81	0	0	0	0.00	0	0	0.00	0.00
Pharmacy Unit	48	0	7.81	0	374.88	0	249.92	1	0	249.92	249.92
Total	208	0	31.24	0	1624.48	0	1082.99		0	449.86	449.86
Friends of Shanta Bhawan											
Treatment Unit	264	1.9	19.5	501.6	5148	334.4	3432	0.08	26.75	274.56	301.31
Laboratory Unit	150	1.9	19.5	285	2925	190	1950	0.27	51.30	526.5	577.80
Radiology Unit	0	1.9	19.5	0	0	0	0	0	0.00	0	0.00
Pharmacy Unit	150	1.9	19.5	285	2925	190	1950	1	190.00	1950	2140.00
Total	564	7.6	78	1071.6	10998	714.4	7332		268.05	2751.06	3019.11
Helping Hands											
Treatment Unit	312	2.58	16.45	804.96	5132.4	536.64	3421.6	0.085	45.61	290.84	336.45
Laboratory Unit	120	2.58	16.45	309.6	1974	206.4	1316	0.165	34.06	217.14	251.20
Radiology Unit	184	2.58	16.45	474.72	3026.8	316.48	2017	0.27	85.45	544.59	630.04
Pharmacy Unit	80	2.58	16.45	206.4	1316	137.6	87	1	137.60	87.00	224.60
Total	696	10.32	65.8	1795.68	11449.2	1197.12	6841.6		302.72	1139.57	1442.29

Appendix B8: Material Costs (Contd...)

Calculation of Building Related indirect Material costs of Various DOTS Centers (in Nepalese Rupees, 2001 prices)

	Area occupied (sq ft)	Building maintenance cost/sqft/year	Water and Electricity cost/sqft/year	Annual cost		8 month cost for TB			8 month cost for TB		
				Building and maintenance	Water and electricity	Building and maintenance	Water and electricity	Allocation proportion	Building maintenance	Water and electricity	Building Maintenance and water and Elec. Total
Birendra Police hospital											
Treatment Unit	100	44.43	90.34	4443	9034	2962	6022.67	0.055	162.91	331.25	494.16
Laboratory Unit	168	44.43	90.34	7464.24	15177.12	4976.16	10118.08	0.055	273.6888	556.49	830.18
Radiology Unit	220	44.43	90.34	9774.6	19874.8	6516.4	13249.87	0.03	195.492	397.50	592.99
Pharmacy Unit	100	44.43	90.34	4443	9034	2962	6022.67	0.27	799.74	1626.12	2425.86
Total	588		361.36	26124.84	53119.92	17416.56	35413.29		1431.831	2911.36	4343.19
Anam Nagar Poly Clinic											
Treatment Unit	80	5.58	42.8	446.4	3424	297.6	198.4	0.21	62.496	41.66	104.16
Laboratory Unit	80	5.58	42.8	446.4	3424	297.6	198.4	0.07	20.832	13.89	34.72
Radiology Unit	60	5.58	42.8	334.8	2568	223.2	148.4	0.07	15.624	10.39	26.01
Pharmacy Unit	64	5.58	42.8	357.12	2739.2	238.08	152.72	0.6	142.848	91.63	234.48
Total	284		171.2	1584.72	12155.2	1056.48	697.92		241.8	157.57	399.37

Appendix C1

Storage and Transportation Cost of Drugs

National Tuberculosis Center has same drug store for central and regional (Central) levels. It has separate drug store for district level. Usually drug was stored for six month with buffer stock in regional level and four month in district level and two month in DOTS center.

Storage cost at Central/regional level

The building was constructed by JICA under donated fund in 1988. Due to non-availability of building cost, an estimate of cost of construction of storerooms (576 sq ft) was made on the basis of 750 NRs per square feet (It was known from contractor who had many years long experience). But it might differ from the quantity and quality of construction material used. Value of land was estimated using local people consensus (1600000 NRs per Ropani i.e., per 5476 square ft.).

Table 1 Capital Cost Calculation

Inputs	Purchase Price	Year of Purchase	Useful life	Present value	Annualization factor	Annual cost
Building for Store one room (576 sq ft)	432000	1988	30	1491264	9.427	158191
Land (1460 sq ft) ft)				426589		426589
				1917853		584780

Labor cost was calculated for six month only. The gross salary might differ slightly because it was assessed by interview.

Table 2 Labor Cost Calculation

Staff	Number	Gross monthly salary	Gross Annual Salary	Gross six month salary
AHW (5th level)	1	6300	75600	37800
Assistant Staff (Kharidar)	2	5000	120000	60000

Table 3 Estimation of TB cases for Kathmandu District

District	Population, 2001	ARTI %	New SP+	Other New TB	Total New TB	Re-treatment Cases	Total estimated TB cases
Kathmandu	1093414	4	2187	2624	4811	164	4975

Table 4 Estimation of Drugs for Kathmandu district

Drug	Category I			Category II			Category III		
	Cases	factor	Total Drug	Cases	factor	Total Drug	Cases	factor	Total Drug
Rifampicine 150 mg	2187	180	393660	164	720	118080	2624	180	472320
Isoniazid 300 mg	2187	240	524880	164	240	39360	2624	240	629760
Pyrazinamide 500mg	2187	180	393660	164	270	44280	2624	180	472320
Ethambutol 400 mg	2187	480	1049760	164	480	78720	2624	360	944640
Streptomycin 0.75 g		0		164	60	9840		0	0
Total			2361960			290280			2519040

The estimated drug (5171280 units) was for one year. District office always stores drugs only for four months. Therefore the estimated quantity of drug stored in four month could be 1723760 units.

Table 4 Labor Cost Calculation for district sotre

Category	Number	Gross Salary/Month	Daily Cost	Time Spent in TB	Attributable day of salary four month	four month Salary attributable to TB
Store Keeper (Kharidar level)	1	5292	240.55	2 days per four months	2	481.09
Peon	1	3979	180.86	2 days per four months	2	361.73
Driver	1	5000	227.27	1 day per four months	2	454.56
Total		14271	648.68			1297.38

Since District Public Health Office has rented a building with area about 4320 sq ft. The rent of that building was 20,000 NRS per month (4.63 NRs/ sq ft). The space used for the storage of TB drug was 72 sq ft that gave 333.36 NRs per month and 1333.44 for four month.

Table 5 Capital Cost Calculation of Vehicle

Inputs	Useful life	Current Price	Annualization factor	Annual cost	Daily cost	Time spent on TB (days/4 month for drug transportation)	Total cost on TB in four month
Vehicle	10	900000	6.145	146460.53	544.46	2 day	1088.92

Total traveled distance was estimated as 128 Km. This distance covers up and down from District Public Health Office to NTC once in four month and other DOTS centers twice in four month. The consumption of diesel was estimated as 25.6 liters (one liter per five kilometers, 18 NRs per liter). Its cost was 460.8 NRs .

Total capital cost = 1877.9, labor cost =1070, Material cost = 460.6 giving total 3408.7 NRs at 2001/2001 price.

Central Drug Store			District Drug Store			Central + District Store	
Total quantity of drugs stored	Total Cost	Unit cost	Total quantity of drug stored	Total cost	Unit cost	Total unit cost for storage of Drugs	
45487709	682580	0.015	1723760	3408.7	0.002	0.017	

**Appendix C2: Drug Costs
(Ramghat PHC)**

Drug Cost for those who completed full course of treatment under different treatment categories, and declared as either cured or completed, during first 8 month of FY 2000/2001, price in Nepalese Rupees.

Drug	Category I (2HRZE/6HE)					Category II (2SHRZE/1HRZE/5HRE)					Category III (2HRZ/6HE)					
	Cases	Factor	Total Drug	Unit cost	Total cost	Cases	factor	Total Drug	Unit cost	Total cost	Cases	factor	Total Drug	Unit cost	Total cost	Total cost
Rifampicine 150 mg	15	180	2700	2.24	6048	0	720	0	2.24	0	11	180	1980	2.24	4435.20	10483.2
Isoniazid 300 mg	15	240	3600	0.33	1188	0	240	0	0.33	0	11	240	2640	0.33	871.2	2059.2
Pyrazinamide 500mg	15	180	2700	2.79	7533	0	270	0	2.79	0	11	180	1980	2.79	5524.2	13057.2
Ethambutol 400 mg	15	480	7200	2.3	16560	0	480	0	2.3	0	11	360	3960	2.3	9108	25668
Streptomisine 0.75 g		0	0	0	0	0	60	0	5.95	0	0	0	0	0	0	0
Total	15				31329	0				0	11				19938.6	51267.6
Cost per case cured/completed					2088.6					0					1812.6	

**Appendix C3: Drug Costs
(Friends of Shanta Bhawan)**

Drug Cost for those who completed full course of treatment under different treatment categories, and declared as either cured or completed, during first 8 month of FY 2000/2001, price in Nepalese Rupees.

Drug	Category I (2HRZE/6HE)					Category II (2SHRZE/1HRZE/5HRE)					Category III (2HRZ/6HE)					
	Cases	Factor	Total Drug cost	Unit cost	Total cost	Cases	Factor	Total Drug cost	Unit cost	Total cost	Cases	Factor	Total Drug cost	Unit cost	Total cost	Total cost
Rifampicine 150 mg	63	180	11340	2.24	25402	19	720	13680	2.24	30643.2	73	180	13140	2.24	29433.6	85478.4
Isoniazid 300 mg	63	240	15120	0.33	4989.6	19	240	4560	0.33	1504.8	73	240	17520	0.33	5781.6	12276
Pyrazinamide 500mg	63	180	11340	2.79	31639	19	270	5130	2.79	14312.7	73	180	13140	2.79	36660.6	82611.9
Ethambutol 400 mg	63	480	30240	2.3	69552	19	480	9120	2.3	20976	73	360	26280	2.3	60444	150972
Streptomycin 0.75 g	0	0	0	0	0	19	60	1140	5.95	6783	0	0	0	0	0	6783
Total	63				131582	19				74219.7	73				132319.8	338121.3
Cost per case cured/completed					2088.6					3906.3					1812.6	

Note: H = Isoniazid, R = Rifampicine, S = Streptomycin, Z = Pyrazinamide, E = Ethambutol

**Appendix C4: Drug Costs
(Helping Hands Clinic, Nepal)**

Drug Cost for those who completed full course of treatment under different treatment categories, and declared as either cured or completed, during first 8 month of FY 2000/2001, price in Nepalese Rupees.

Drug	Cases	Category I (2HRZE/6HE)				Category II (2SHRZE/1HRZE/5HRE)				Category III (2HRZ/6HE)				Total cost		
		Factor	Drug	Unit cost	Total cost	Cases	Factor	Cost	Unit cost	Total cost	Cases	Factor	Drug		Unit cost	Total cost
Rifampicine 150 mg	58	180	10440	2.24	23385.6	7	720	5040	2.24	11289.6	60	180	10800	2.24	24192	58867.2
Isoniazid 300 mg	58	240	13920	0.33	4593.6	7	240	1680	0.33	554.4	60	240	14400	0.33	4752	9900
Pyrazinamide 500mg	58	180	10440	2.79	29127.6	7	270	1890	2.79	5273.1	60	180	10800	2.79	30132	64532.7
Ethambutol 400 mg	58	480	27840	2.30	64032	7	480	3360	2.30	7728	60	360	21600	2.30	49680	121440
Streptomycin 0.75 g	0	0	0	0.00	0	7	60	420	5.95	2499	0	0	0	0.00	0	2499
Total	58				121139	7				27344.1	60				108756	257238.9
Cost per case cured/completed					2088.6					3906.3					1812.6	

Note: H = Isoniazid, R = Rifampicine, S = Streptomycin, Z = Pyrazinamide, E = Ethambutol

**Appendix C5: Drug Costs
(Birendra Police Hospital)**

Drug Cost for those who completed full course of treatment under different treatment categories, and declared as either cured or completed, during first 8 month of FY 2000/2001, price in Nepalese Rupees.

Drug	Category I (2HRZE/6HE)					Category II (2SHRZE/1HRZE/5HRE)					Category III (2HRZ/6HE)					
	Cases	factor	Total	Unit cost	Total cost	Cases	factor	Total	Unit cost	Total cost	Cases	factor	Total	Unit cost	Total cost	Total cost
Rifampicine 150 mg	16	180	2880	2.24	6451.2	4	720	2880	2.24	6451.2	44	180	7920	2.24	17741	30643.2
Isoniazid 300 mg	16	240	3840	0.33	1267.2	4	240	960	0.33	316.8	44	240	10560	0.33	3484.8	5068.8
Pyrazinamide 500mg	16	180	2880	2.79	8035.2	4	270	1080	2.79	3013.2	44	180	7920	2.79	22097	33145.2
Ethambutol 400 mg	16	480	7680	2.30	17664	4	480	1920	2.30	4416	44	360	15840	2.30	36432	58512
Streptomycine 0.75 g	0	0	0	0	0	4	60	240	5.91	1418.4	0	0	0	0	0	1418.4
Total	16				33418	4				15616	44				79754	128788
Cost per case cured/completed					2088.6					3903.9					1812.6	257575

Note: H = Isoniazid, R = Refampicine, S = Streptomycin, Z = Pyrazinamide, E = Ethambotoal

Appendix C6: Drug Costs
(Anam Nagar Poly Clinic and Research Center)

Drug Cost for those who completed full course of treatment under different treatment categories, and declared as either cured or completed, during first 8 month of FY 2000/2001, price in Nepalese Rupees.

Drug	Category I (2HRZE/6HE)					Category II (2SHRZE/1HRZE/5HRE)					Category III (2HRZ/6HE)					
	Cases	Factor	Total Drug	Unit cost	Total cost	Cases	Factor	Total Drug	Unit cost	Total cost	Cases	Factor	Total Drug	Unit cost	Total cost	Total cost
Rifampicine 150 mg	5	180	900	2.24	2016	1	720	720	2.24	1612.8	5	180	900	2.24	2016	5644.8
Isoniazid 300 mg	5	240	1200	0.33	396	1	240	240	0.33	79.2	5	240	1200	0.33	396	871.2
Pyrazinamide 500mg	5	180	900	2.79	2511	1	270	270	2.79	753.3	5	180	900	2.79	2511	5775.3
Ethambutol 400 mg	5	480	2400	2.3	5520	1	480	480	2.3	1104	5	360	1800	2.3	4140	10764
Streptomycin 0.75 g		0	0	0	0	1	60	60	5.95	357	0	0	0	0	0	357
Total	5				10443	1				3906.3	5				9063	23412.3
Cost per case cured/completed					2088.6					3906.3					1812.6	

Note: H = Isoniazid, R = Rifampicine, S = Streptomycin, Z = Pyrazinamide, E = Ethambutol

Appendix C7: Drug Costs

Estimated costs of drugs consumed by Failures, Died and Defaulted TB patients registered during first 8 month of FY 2000/2001 at various DOTS Centers (in Nepalese Rupees, 2001 prices)

Ramghat	Unit cost	Unit cost	Failure				Died				Defaulted				Transfer out				Total
			I	Drug Cost	C	Drug Cost	I	Drug Cost	C	Drug Cost	I	Drug Cost	C	Drug Cost	I	Drug Cost	C	Drug Cost	
Category I	21.92	6.86	0	0	0	0	0	0	0	0	300	6576	384	2634.24	60	1315.2	150	1029	
Category II	27.92	13.58	90	2512.8	150	2037	0	0	0	0	90	2512.8	5	67.9	0	0	0	0	
Category III	17.36	6.86	0	0	0	0	0	0	0	0	64	1111.04	0	0	0	0	0	0	
Total			90	2512.8	150	2037	0	0	0	0	454	10199.84	389	2702.14	60	1315.2	150	1029	19795.98
FSB																			
Category I	21.92	6.86	120	2630.4	180	1234.8	54	1183.68	0	0	0	0	0	0	112	2455.04	22	150.92	
Category II	27.92	13.58		0		0	119	3322.48	150	2037	0	0	0	0	0	0	0	0	
Category III	17.36	6.86		0		0	0	0	0	0	120	2083.2	0	0	379	6579.44	156	1070.16	
Total			120	2630.4	180	1234.8	173	4506.16	150	2037	120	2083.2	0	0	491	9034.48	178	1221.08	22747.12
HHC																			
Category I	21.92	6.86	0	0	0	0	60	1315.2	0	0	300	6576	90	617.4	286	6269.12	181	1241.66	
Category II	27.92	13.58	180	5025.6	120	1629.6	0	0	0	0	60	1675.2	0	0	180	5025.6	80	1086.4	
Category III	17.36	6.86	0	0	0	0	0	0	0	0	360	6249.6	0	0	84	1458.24	0	0	
Total			180	5025.6	120	1629.6	60	1315.2	0	0	720	14500.8	90	617.4	550	12752.96	261	2328.06	38169.62
BPH																			
Category I	21.92	6.86	0	0	0	0	120	2630.4	94	644.84	193	4230.56	0	0	944	20692.48	358	2455.88	
Category II	27.92	13.58	0	0	0	0	30	837.6	0	0	0	0	0	0	90	2512.8	0	0	
Category III	17.36	6.86	0	0	0	0	0	0	0	0	135	2343.6	0	0	0	0	0	0	
Total			0	0	0	0	150	3468	94	644.84	328	6574.16	0	0	1034	23205.28	358	2455.88	36348.16
ANAM																			
Category I	21.92	6.86	0	0	0	0		0	0			0		0		0		0	
Category II	27.92	13.58	0	0	0	0		0	0			0		0		0		0	
Category III	17.36	6.86	0	0	0	0		0	0			0		0		0		0	
Total																			

Note: I= Intensive Phase, C = Continuation Phase

The number given in columns of Intensive Phase and Continuation Phase refers the days that re-treatment patients took TB drugs.

Appendix D

Allocation Proportion for Treatment Unit of Ramghat PHC

No. of visits to treatment unit in a year	= 677
Suspected cases in a year	= 27
Other patients registered in a year	= 677-27 = 650
Re-treatment cases in a year	= 5
TB follow up patients in a year	= 149
No. of visits made by all suspected cases	= 43
Re-treatment cases also made 2 visits	= 5 x 2 = 10
Therefore Total TB related visits to treatment unit	= 43 + 10 + 149 = 202 visits

Using, $(N_{TB} + N_{other}) K = W_H$

Where

N_{TB} = Total number of TB related visits

N_{other} = Total number of other (non-TB cases) visits

W_H = Total working hours in a year

K = Time spent per visit

$(202 + 650) K \text{ visits/year} = 7 \times 259 \text{ hours/year}$

$K = 1883/852 = 2.2 \text{ hours/day/visit}$

We have only 202 TB visits in a year,

Therefore, No of TB visits per day = $202/269 = 0.75$ visits per day

Time spent on TB related case = $2.2 \times 0.75 = 1.65$ hrs per day.

The proportion of Time will be = $1.65/7 = 0.236 = 0.24$ (approx)

i.e., 24% of time was spent on TB

(Note, working hours in a day = 7 hours and working days in a year = 269)

Appendix E1

Allocation Proportion for Treatment Unit of Friends of Shanta Bhawan

Number of visits to treatment unit in a year = 23463
 Suspected cases in a year = 596
 Other patients registered in a year = $677-27 = 650$
 Re-treatment cases in a year = 31
 TB follow up visits in a year = 679
 No. of visits made by all suspected cases(596) = $596 \times 2 = 1192$ visits
 Re-treatment cases (31) also made 2 visits = $31 \times 2 = 62$
 Therefore Total TB related visits to treatment unit = $1192 + 62 + 679 = 1933$ visits
 Therefore, other visits = $23463 - 1933 = 21530$

Using, $(N_{TB} + N_{other}) K = W_H$

Where N_{TB} = Total number of TB related visits
 N_{other} = Total number of other (non-TB cases) visits
 W_H = Total working hours in a year
 K = Time spent per visit

$(1933 + 21530) K \text{ visits/year} = 5.5 \times 259 \text{ hours/year}$

$K = 1479.5/23463852 = 0.063 \text{ hours/day/visit}$

We have only 1933 TB visits in a year,

Therefore, No. of TB visits per day = $1933/269 = 7.186$ visits

Time spent on TB related case = $7.186 \times 0.063 = 0.453$ hrs per day.

The proportion of Time will be = $0.453/5.5 = 0.082$ i.e., 8.2% of time was spent on TB

(Note: working hours in a day = 5.5 hours, working days in a year = 269)

Appendix E2

Allocation Proportion for Laboratory Unit of Friends of Shanta Bhawan

Total service provided in a year = 9541 (TB + others)

Total TB related tests in a year = 2560 Slides

Non- TB tests in a year = 9541 – 2560 = 6941

Then,

Using, $(N_{TB} + N_{other}) K = W_H$

Where N_{TB} = Total number of TB related tests

N_{other} = Total number of other (non-TB cases) tests

W_H = Total working hours in a year

K = Time spent per test

$(2560 + 6941) K = 5.5 \times 269 \text{ hrs/year}$

$K = 1469.5/9541 \text{ hrs/test/day}$

$K = 0.155 \text{ hrs/test/day}$

Average number of TB related tests = 2560/year

$= 2560/269 = 9.51 \text{ tests/ day}$

(Note: Number of working hours in a year = 269)

Time spent on TB per day = 9.51 x 0.155 hrs = 1.47 hrs

The proportion of time on TB = Time spent on TB per day/working hrs per day

$= 1.47/5.5 = 0.27$

That is, 27% time was used for TB related cases in the laboratory

Appendix F1

Allocation Proportion for Treatment Unit of of Helping Hands

Clinic

Number of patients registered in a year	= 12093
Suspected cases in a year	= 246
Other patients registered in a year	= 12093- 246 = 11847
Re-treatment cases in a year	= 24
TB follow up visits in a year	= 570
No. of visits made by all suspected cases(246)	= 246 x 2 = 492 visits
Re-treatment cases (24) also made 2 visits	= 24 x 2 = 48
Follow up visits	= 570
Therefore, Total TB related visits to treatment unit	= 492 + 48 + 570 = 1110 visits

$$\text{Using, } (N_{\text{TB}} + N_{\text{other}}) K = W_{\text{H}}$$

Where

N_{TB} = Total number of TB related visits

N_{other} = Total number of other (non-TB cases) visits

W_{H} = Total working hours in a year

K = Time spent per visit

$$(1110 + 11847) K \text{ visits/year} = 6 \times 317 \text{ hours/year}$$

(Note: working hours per day = 6 and working day in a year = 317)

$$K = 1902/12957 = 0.147 \text{ hours/day/visit}$$

We have only 1110 TB visits in a year,

Therefore, No. of TB visits per day = 1110/317 = 3.5 visits/day

Time spent on TB related case = 3.5 x 0.147 = 0.514 hrs per day.

The proportion of Time will be = 0.514/6 = 0.0856 i.e., 8.56% of time was spent on

TB

Appendix F2

Allocation Proportion for Laboratory Unit of Helping Hands Clinic

Total service provided = 8038 (TB + others)

Total TB related tests = 1325

Non- TB tests = 6713

Then,

Using, $(N_{TB} + N_{other}) K = W_H$

Where N_{TB} = Total number of TB related tests in a year

N_{other} = Total number of other (non-TB cases) tests in a year

W_H = Total working hours in a year

K = Time spent per test

$(1325 + 6713) K = 6 \times 317 \text{ hrs/year}$

$K = 1902/8038 \text{ hrs/test/day}$

$K = 0.237 \text{ hrs/test/day}$

Average number of TB related tests = 1325/year

$= 1325/317 = 4.18 \text{ tests/ day}$

(Note: Number of working hours in a year = 317 and working hours per day = 6)

Time spent on TB per day = $4.18 \times 0.237 \text{ hrs} = 0.9906 \text{ hrs}$

The proportion of time on TB = Time spent on TB per day/working hrs per day
 $= 0.99/6 = 0.165$

That is, 16.5% time was used for TB related cases in the laboratory

Appendix F3

Allocation Proportion for Radiology Unit of Helping Hands Clinic

Total X-ray performed in a year = 1727

TB related X-ray in a year = 465

Non TB X-ray in a year = 1727 – 465 = 1262

Then,

Using, $(N_{TB} + N_{other}) K = W_H$

Where N_{TB} = Total number of TB related tests in a year

N_{other} = Total number of other (non-TB cases) tests in a year

W_H = Total working hours in a year

K = Time spent per test

$(465 + 1262) K = 6 \times 317 \text{ hrs/year}$

$K = 1902/1727 \text{ hrs/test/day}$

$K = 1.103 \text{ hrs/test/day}$

Average number of TB related X-ray = 465/year

$= 465/317 = 1.467 \text{ X-ray/day}$

(Note: Number of working hours in a year = 317 and working hours per day = 6)

Time spent on TB per day = $1.103 \times 1.467 \text{ hrs} = 1.618 \text{ hrs} = 1.62 \text{ hrs (approx)}$

The proportion of time on TB = Time spent on TB per day/working hrs per day

$= 1.62/6 = 0.27$

That is, 27% time was used for TB related cases in Radiology unit

Appendix G1

Allocation Proportion for Treatment Unit of Anam Nagar Clinic

Number of patients registered in a year	= 1268
Suspected cases in a year	= 101
Other patients registered in a year	= 1268- 101 = 1167
Re-treatment cases in a year	= 4
TB follow up visits in a year	= 77
No. of visits made by all suspected cases(101)	= 101 x 2 = 202 visits
Re-treatment cases (4) also made 2 visits	= 4 x 2 = 8
Follow up visits	= 77
Therefore, Total TB related visits to treatment unit	= 202+ 8 + 77 = 267 visits

$$\text{Using, } (N_{\text{TB}} + N_{\text{other}}) K = W_H$$

Where

N_{TB} = Total number of TB related visits in a year

N_{other} = Total number of other (non-TB cases) visits in a year

W_H = Total working hours in a year

K = Time spent per visit

$$(267+ 1167) K \text{ visits/year} = 6 \times 317 \text{ hours/year}$$

(Note: working hours per day = 6 and working day in a year = 317)

$$K = 1902/1434 = 1.326 \text{ hours/day/visit}$$

Number of TB related visits per year = 267

Therefore, No. of TB visits per day = 267/317 = 0.842 visits/day

Time spent on TB related case = 0.842 x 1.326 = 1.116 = 1.12 hrs per day (approx.)

The proportion of Time = 1.12/6 = 0.186 = 0.19 (approx)

i.e.,19% of time was spent on TB

Appendix G2

Allocation Proportion for Laboratory Unit of Anam Nagar Poly Clinic

Total service provided in a year = 3492 (TB + others)

Total TB related tests in a year = 322

Non- TB tests in a year = 3492 – 322 = 3170

Then,

Using, $(N_{TB} + N_{other}) K = W_H$

Where N_{TB} = Total number of TB related tests in a year

N_{other} = Total number of other (non-TB cases) tests in a year

W_H = Total working hours in a year

K = Time spent per test

$(322 + 3170) K = 6 \times 317 \text{ hrs/year}$

$K = 1902/3492 \text{ hrs/test/day}$

$K = 0.54 \text{ hrs/test/day}$

Average number of TB related tests in a year = 322

$= 322/317 = 1.016 \text{ tests/ day}$

(Note: Number of working hours in a year = 317 and working hours per day = 6)

Time spent on TB per day = 1.016 x 0.54 hrs = 0.548 hrs = 0.55 hrs

The proportion of time on TB = Time spent on TB per day/working hrs per day
 $= 0.55/6 = 0.092 = 0.09 \text{ (approx)}$

That is, 9% time was used for TB related cases in the laboratory

Appendix G3

Allocation Proportion for Radiology Unit of Anam Nagar Poly Clinic

Total X-ray performed in a year = 1585
 TB related X-ray in a year = 112
 Non-TB X-ray in a year = 1585 - 112 = 1473

Then,

Using, $(N_{TB} + N_{other}) K = W_H$

Where N_{TB} = Total number of TB related tests in a year
 N_{other} = Total number of other (non-TB cases) tests in a year
 W_H = Total working hours in a year
 K = Time spent per test

$(112 + 1473) K = 6 \times 317 \text{ hrs/year}$
 $K = 1902/1585 \text{ hrs/test/day}$
 $K = 1.2 \text{ hrs/test/day}$

Average number of TB related X-ray = 112/year
 $= 112/317 = 0.353 \text{ X-ray/day}$

(Note: Number of working hours in a year = 317 and working hours per day = 6)

Time spent on TB per day = $0.353 \times 1.2 \text{ hrs} = 0.423 \text{ hrs} = 0.42 \text{ hrs (approx)}$

The proportion of time on TB = Time spent on TB per day/working hrs per day
 $= 0.42/6 = 0.07$

That is, 7% time was used for TB related cases in Radiology unit

Health Service Coverage Fact Sheet

119

FY 2054/55 (1997/98) to 2056/57 (1999/2000)

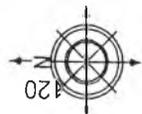
REPORTING STATUS	2054/55	2055/56	2056/57
District to MIS Section	100%	100%	100%
Hospital to DHO	66%	64%	61%
PHCC to District	96%	94%	96%
HP to District	96%	97%	95%
Sub Health Post to HP/PHCC	86%	91%	92%
CHV to SHP/HP/PHCC	53%	56%	55%
TBA to SHP/HP/PHCC	56%	55%	51%
NCO/Private Sector/Others to DHO	57%	63%	63%
EXPANDED PROGRAMME ON IMMUNIZATION			
1 BCG Coverage	100%	93%	97%
2 DPT-3 Coverage	83%	76%	80%
3 Polio-3 Coverage	83%	76%	80%
4 Measles Coverage	89%	81%	77%
6 Number of Children <5 Years Received Polio (NID - Phase 1)	3,860,983	3,646,063	3,632,031
Number of Children <5 Years Received Polio (NID - Phase 2)	3,917,449	3,744,672	3,808,542
NUTRITION			
6 Growth Monitoring Coverage as % of <3 Children New Visits	28%	30%	34%
7 Proportion of Malnourished Children (Weight/Age - New Visits)	23%	23%	21%
ACUTE RESPIRATORY INFECTION			
8 Incidence of ARI/1,000 <5 Children New Visits	140	144	166
9 Annual Incidence of Pneumonia (Mild+Severe)/1,000 among <5 Children New Visits	64	64	72
10 Annual Incidence of Severe Pneumonia/1,000 among <5 children New Visits	8.0	7.7	5.3
DIARRHOEAL DISEASES			
11 Incidence of Diarrhoea/1,000 <5 Children New Cases	171	172	164
12 % of Some Dehydration among Total New Cases	43%	48.2%	41.1%
13 % of Severe Dehydration among Total New Cases	7%	7%	5%
14 Diarrhoeal Deaths/1,000	0.1	0.2	0.7
15 Case Fatality Rate/1,000	0.9	0.1	0.4
SAFE MOTHERHOOD			
16 First Antenatal Visits as % of Expected Pregnancies	26%	27%	35%
17 Average No. of ANC Visits per Pregnant Woman	1.8	1.9	1.7
18 Deliveries Conducted by TBAs as % of Expected Pregnancies	4.5%	4.5%	5.3%
19 Deliveries Conducted by Trained Person (including TBAs) ** as % of Expected Pregnancies	8.1%	13.4%	13.5%
FAMILY PLANNING			
20 Contraceptive Prevalence Rate (CPR)	31.3%	32.6%	34.5%
21 Condoms (CPR Method Mix)	1.7%	1.9%	1.9%
22 Pills "	1.8%	1.9%	2.3%
23 Depo Provera "	7.0%	8.0%	8.7%
24 IUCD "	0.5%	0.5%	0.7%
25 Norplant "	0.7%	0.7%	0.8%
26 Sterilization "	19.6%	19.6%	20.0%
27 Couple Years of Protection (CYP) By Method (% of MWRA) for New Acceptors	29.6%	29.6%	32.6%
28 Condoms (CYP Method Mix)	1.7%	1.9%	1.9%
29 Pills "	1.1%	1.2%	1.2%
30 Depo "	5.2%	5.6%	6.1%
31 IUCD "	0.6%	0.6%	1.5%
32 Norplant "	0.7%	0.7%	1.0%
33 Sterilization "	20.3%	19.5%	20.7%
MALARIA CONTROL PROGRAMME			
34 Blood Slide Examination Rate per 100 Malarious Area Population	0.8	0.7	0.6
35 Slide Positivity Rate (SPR)	6.2	6.6	8.9
TUBERCULOSIS CONTROL PROGRAMME			
*36 Case Detection Rate	50%	62%	67%
*37 New Sputum +ve	11,400	12,597	13,446
*38 Cure Rate	61%	68%	75%
*39 Treatment success rate on DOTS	-	-	89%
*40 National treatment success rate	-	-	84%
*41 DOTS coverage (Population)	-	-	75%
LEPROSY CONTROL PROGRAMME			
**42 New Case Detection Rate/10,000	3.17	7.8	3.18
**43 Prevalence Rate/10,000	3.9	8.7	3.88
**44 Disability Rate Grade 2 Among New Cases	11.7	8.7	7.18
CURATIVE SERVICES			
45 Total OPD New Visits	7,115,981	6,983,297	7,036,459
46 Total OPD New Visits as % of Total Population	32.8%	31.3%	30.7%

Source: PFAD/DoHS

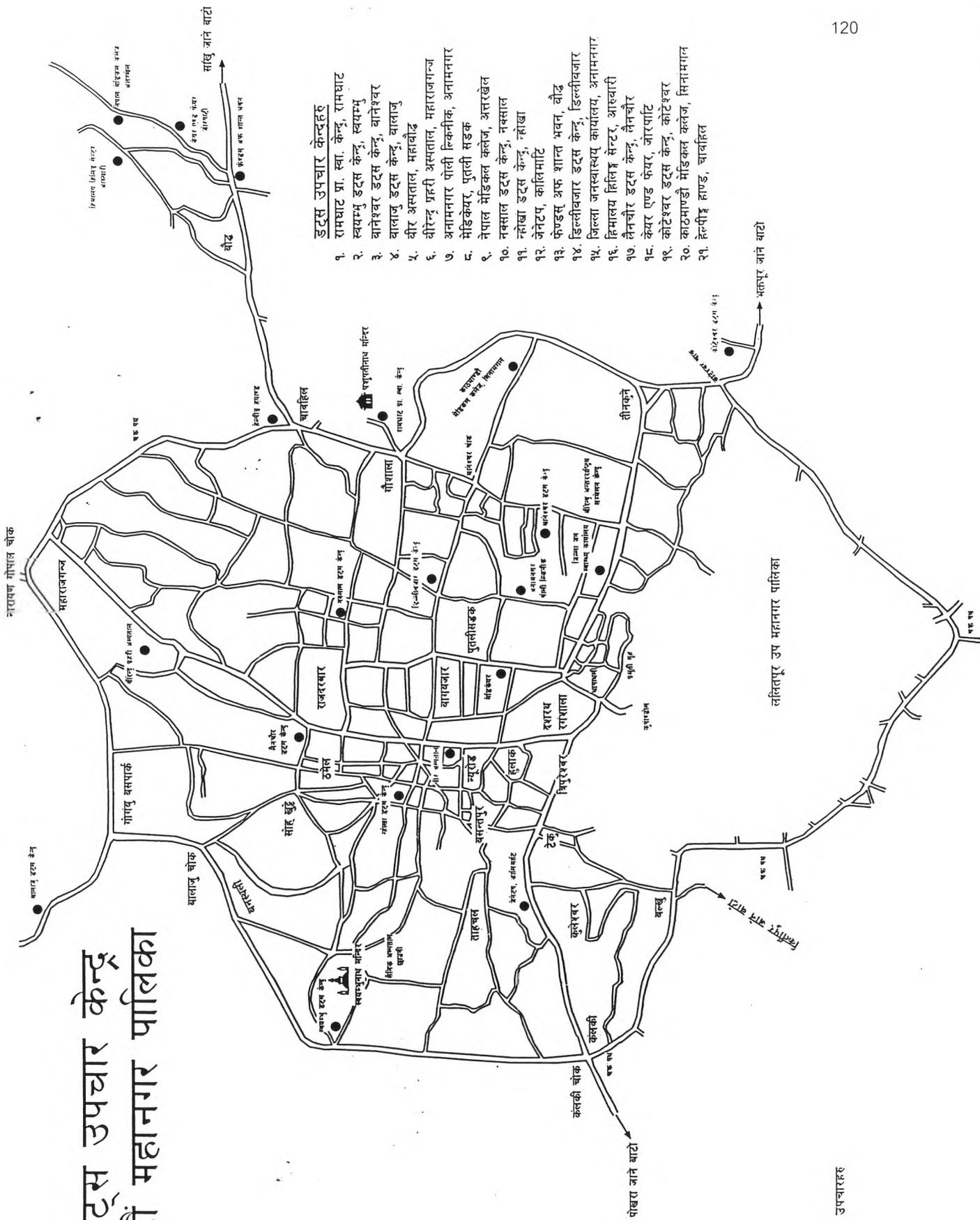
* NTC

** LCD

** Inclusive of hospital deliveries from FY 2055/56



शहरी इट्स उपचार केन्द्र काठमाण्डौ महानगर पालिका



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९. नेपाल मेडिकल कलेज, अत्तरखेल
१०. नक्साल इट्स केन्द्र, नक्साल
११. न्होखा इट्स केन्द्र, न्होखा
१२. जेनेटप, कालिमाटि
१३. फेण्डस् अफ शान्त भवन, बौद्ध
१४. डिल्लीवजार इट्स केन्द्र, डिल्लीवजार
१५. जिल्ला जनस्वास्थ्य कार्यालय, अनामनगर
१६. हिमालय लिनिङ्ग सेन्टर, आरुवारी
१७. लैनचौर इट्स केन्द्र, लैनचौर
१८. केयर एण्ड फेयर, जोरपाटि
१९. कोटेश्वर इट्स केन्द्र, कोटेश्वर
२०. काठमाण्डौ मेडिकल कलेज, सिनामंगल
२१. हेल्थीङ्ग हाण्ड, चाबहिल

● शहरी इट्स उपचारहरू

Nepal Social Indicators

Total Area of the Kingdom	: 147181 Sq.Km ₀
Geographic Coordinates	: 26° 22' N to 30° 27'N; 80° 4'E to 88° E
Elevation Range	: 90 to 8,848 meters
Average Length	: 885 Km
Average Breadth	: 193 Km
Highest Peak of the World	: Mt. Everest (8,848 meters)

Demographic and Socio-economic Indicators

Population (Total)	: 23,214,681
Male	: 11,587,547
Female	: 11,627,134
Sex Ratio	: 0.997
Population Growth Rate	: 2.27
Households	: 4,311,747
Average Household Size	: 5.38
Urban/Rural Population Ratio(%)	: 16.10/83.90
Crude Birth Rate	: 33.06
Crude Death Rate	: 9.62
Total Fertility Rate	: 4.2
Infant Mortality Rate	: 61.5
Life Expectancy at Birth (Years)	: 59.7
Literacy Rate (%) (1991 Census)	: 39.6
Male(%)	: 54.5
Female(%)	: 25.1
Per Capita GDP (Estimated for 2000/01):	US\$ 240
Exchange Rate (July 2001),	US\$ 1 : NRs 75.4
GDP Growth Rate (2000/01)	: 5.73
Consumer Price Index (1995=100)	: 134.8 (For year 1999/00)
Health (% of GDP) (1992-97)	: 1.2*
Education (% of GDP) (1992-97)	: 2.8*
Gini Index (1992-97)	: 36.7*
Poverty (% of population):	
National Headcount Index	: 42*
Urban Headcount Index	: 23*
Rural Headcount Index	: 44*

Source: Central Bureau of Statistics 2001. Nepal in Figures. HMG/Nepal

* World Bank 2000. Nepal 2000 Economic Update.

