

**PAPUA NEW GUINEA:**

**POVERTY ASSESSMENT**

**Annexes**

**30 June 2004**

## **TABLE OF CONTENTS**

<b>ANNEX 1: MAPS OF PAPUA NEW GUINEA.....</b>	<b>3</b>
<b>ANNEX 2: PESD DATA AT A GALANCE .....</b>	<b>14</b>

## ANNEX 1: MAPS OF PAPUA NEW GUINEA

**Table A1.1 The least developed districts based on World Bank study and the District Development Index (DDI)**

Rank (1= least developed)	World Bank poverty mapping		Rank (1= least developed)	District Development Index (DDI)	
	District	Province		District	Province
1	Middle Fly	Western	1	Telefomin	Sandaun
2	Telefomin	Sandaun	2	Nuku	Sandaun
3	Vanimo-Green River	Sandaun	3	Vanimo-Green River	Sandaun
4	Nuku	Sandaun	4	Aitape-Lumi	Sandaun
5	Rai Coast	Madang	5	Middle Ramu	Madang
6	Aitape-Lumi	Sandaun	6	Rai Coast	Madang
7	Central Bougainville	Bougainville	7	Menyamy	Morobe
8	South Fly	Western	8	Obura-Wonenara	Eastern Highlands
9	Middle Ramu	Madang	9	Usino Bundi	Madang
10	Jimi	Western H'lands	10	Kompam	Enga
11	Goilala	Central	11	Komo-Margarima	Southern Highlands
12	Bogia	Madang	12	Ambunti-Drekikir	East Sepik
13	Koroba-Kopiago	Southern H'lands	13	Goilala	Central
14	Obura-Wonenara	Eastern H'lands	14	Koroba- Lake Kopiago	Southern Highlands
15	Kagua-Erave	Southern H'lands	15	Jimi	West Highlands
16	Ambunti-Drekikir	East Sepik	16	Bogia	Madang
17	Kabwum	Morobe	17	Kagua-Erave	Southern Highlands
18	Tambul-Nebilyer	Western H'lands	18	Kerema	Gulf
19	Karimui-Nomane	Simbu	19	Kandep	Enga
20	Abau	Central	20	Angoram	East Sepik

*Source: World Bank staff calculations and NEFC (2004)*

**Table A1.2 Income poverty, education, health and district development indices**

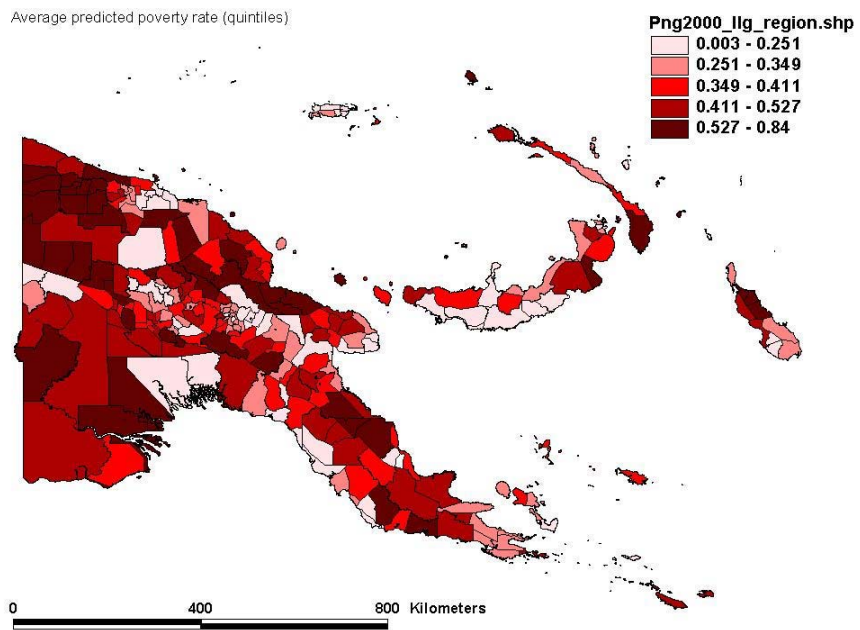
	Province	District	"Income" poverty		Education				Health		District Development Index		
			Percent of poor population		Adult literacy rate		Gross enrolment rate		Life expectancy at birth				
			%	Ranking (1=poorest)	%	Ranking (1=least developed)	%	Ranking (1=least developed)	Index	Ranking (1=least developed)		Years	Ranking (1=least developed)
1	Western	North Fly	25	75	66	58	58	66	0.71	66	54	38	69
1	Western	South Fly	54	8	83	81	55	81	0.84	81	54	38	48
1	Western	Middle Fly	66	1	66	59	50	60	0.65	60	54	38	25
2	Gulf	Kikori	29	62	60	54	39	53	0.53	53	46	6	21
2	Gulf	Kerema	26	71	55	51	33	42	0.44	42	46	6	18
3	Central	Kairuku-Hiri	24	79	82	79	56	80	0.83	80	56	67	81
3	Central	Goilala	51	11	25	6	22	6	0.1	6	56	67	13
3	Central	Rigo	27	69	80	77	52	74	0.8	74	56	67	78
3	Central	Abau	46	20	78	74	59	78	0.82	78	56	67	66
5	Milne Bay	Samarai-Murua	36	44	82	80	48	73	0.78	73	54	35	63
5	Milne Bay	Esa'ala	25	76	77	71	49	68	0.74	68	54	35	72
5	Milne Bay	Kiriwina-Goodenough	38	40	71	62	41	59	0.64	59	54	35	54
5	Milne Bay	Alotau	30	57	81	78	55	79	0.82	79	54	35	73
6	Northern	Ijivitari	43	26	76	70	43	64	0.7	64	55	40	53
6	Northern	Sohe	36	45	63	57	36	54	0.53	54	55	40	50
7	Southern H'lands	Koroba-Kopiago	50	13	33	18	20	13	0.16	13	55	48	14
7	Southern H'lands	Tari-Pori	43	29	49	39	23	27	0.32	27	55	48	32

7	Southern H'lands	Komo-Margarima	44	22	24	2	13	2	0.03	2	55	48	11
7	Southern H'lands	Nipa-Kutubu	42	31	32	15	19	10	0.14	10	55	48	23
7	Southern H'lands	Mendi-Munihu	38	39	38	22	29	18	0.26	18	55	48	33
7	Southern H'lands	Imbonggu	33	52	42	29	31	26	0.31	26	55	48	39
7	Southern H'lands	Kewabi Rural	29	59	46	36	29	30	0.33	30	55	48	47
7	Southern H'lands	Kagua-Erave	48	15	33	16	18	9	0.14	9	55	48	17
8	Enga	Lagaip-Porgera	26	73	28	9	26	11	0.15	11	53	31	28
8	Enga	Kandep	30	58	24	4	19	4	0.07	4	53	31	19
8	Enga	Wapenamanda	29	61	50	42	39	40	0.44	40	53	31	40
8	Enga	Wabag	26	70	43	32	43	38	0.4	38	53	31	42
8	Enga	Kompiani	40	33	30	12	24	12	0.16	12	53	31	10
9	Western H'lands	Dei	38	37	28	10	29	14	0.17	14	56	63	31
9	Western H'lands	North Waghi	35	46	41	27	39	32	0.35	32	56	63	45
9	Western H'lands	Tambul-Nebilyer	46	18	31	13	29	15	0.2	15	56	63	27
9	Western H'lands	Mul-Baiyer	44	24	33	17	38	20	0.27	20	56	63	34
9	Western H'lands	Mt Hagen	34	47	51	44	49	51	0.51	51	56	63	57
9	Western H'lands	Anglimp-South Waghi	38	38	43	31	37	33	0.36	33	56	63	43
9	Western H'lands	Jimi	52	10	27	8	23	7	0.12	7	56	63	15
10	Simbu	Kerowagi	32	54	50	41	42	45	0.45	45	57	75	58
10	Simbu	Gumine	37	43	36	21	36	23	0.29	23	57	75	44
10	Simbu	Karimui-Nomane	46	19	24	5	27	8	0.13	8	57	75	24
10	Simbu	Chuave	28	65	35	19	43	29	0.32	29	57	75	55
10	Simbu	Sina Sina-Yonggomugl	28	66	39	24	49	37	0.4	37	57	75	61
10	Simbu	Kundiawa-Gembogl	25	74	55	50	54	56	0.58	56	57	75	75

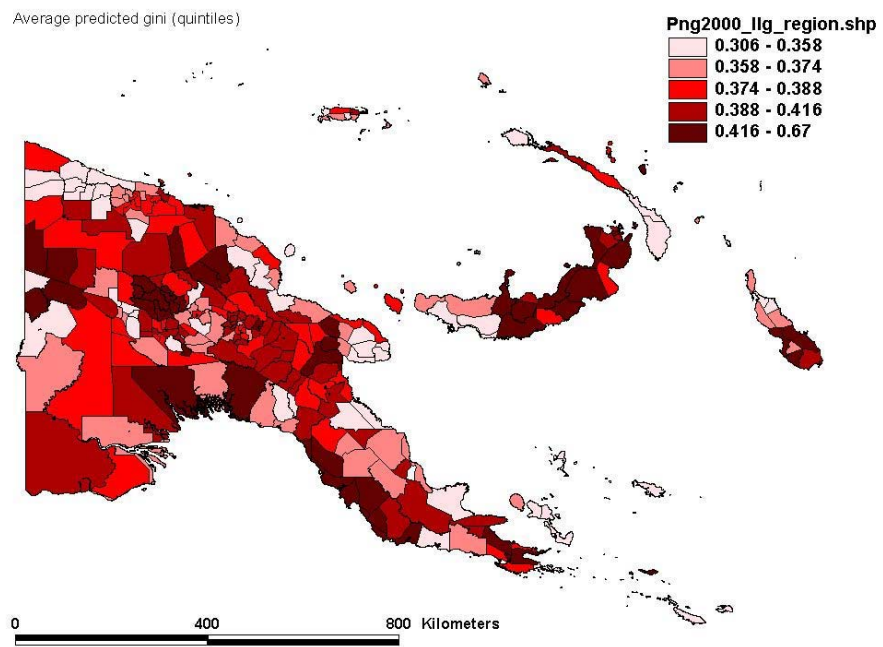
11	Eastern H'lands	Okapa	44	23	35	20	37	21	0.29	21	55	56	29
11	Eastern H'lands	Henganofi	25	77	39	23	32	22	0.29	22	55	56	52
11	Eastern H'lands	Unggai-Benna	17	84	46	35	40	39	0.4	39	55	56	67
11	Eastern H'lands	Asaro-Watabung	18	83	42	28	44	36	0.39	36	55	56	64
11	Eastern H'lands	Lufa	39	36	32	14	32	17	0.23	17	55	56	30
11	Eastern H'lands	Goroka	9	85	60	55	54	58	0.62	58	55	56	80
11	Eastern H'lands	Kainantu rural	27	67	53	47	40	47	0.47	47	55	56	59
11	Eastern H'lands	Obura-Wonenara	50	14	21	1	13	1	0	1	55	56	8
12	Morobe	Tewae-Siassi	37	41	68	60	41	57	0.62	57	52	20	38
12	Morobe	Finschafen	20	82	75	69	45	65	0.71	65	52	20	65
12	Morobe	Nawae	34	50	72	63	49	63	0.7	63	52	20	49
12	Morobe	Huon	27	68	74	64	45	62	0.69	62	52	20	56
12	Morobe	Markham	29	64	54	48	35	44	0.44	44	52	20	37
12	Morobe	Kabwum	47	17	51	43	41	46	0.46	46	52	20	22
12	Morobe	Menyamya	40	34	26	7	13	3	0.05	3	52	20	7
12	Morobe	Bulolo	43	30	52	45	37	43	0.44	43	52	20	26
13	Madang	Middle Ramu	52	9	24	3	20	5	0.07	5	51	12	5
13	Madang	Usino Bundi	45	21	39	25	28	19	0.27	19	51	12	9
13	Madang	Rai Coast	60	5	45	33	32	31	0.34	31	51	12	6
13	Madang	Madang	41	32	75	68	52	69	0.75	69	51	12	41
13	Madang	Sumkar	33	53	71	61	46	61	0.67	61	51	12	46
13	Madang	Bogia	51	12	59	53	38	49	0.5	49	51	12	16
14	East Sepik	Angoram	43	27	45	34	28	28	0.32	28	52	26	20
14	East Sepik	Wewak	32	55	79	75	58	77	0.82	77	52	26	62

14	East Sepik	Ambunti-Drekikir	47	16	40	26	33	24	0.31	24	52	26	12
14	East Sepik	Maprik	34	48	49	40	41	41	0.44	41	52	26	36
14	East Sepik	Wosera Gawi	33	51	46	37	38	35	0.39	35	52	26	35
14	East Sepik	Yangoro Saussia	26	72	54	49	49	55	0.54	55	52	26	51
15	Sandaun	Aitape-Lumi	59	6	53	46	41	48	0.47	48	46	4	4
15	Sandaun	Telefomin	64	2	30	12	31	16	0.21	16	46	4	1
15	Sandaun	Nuku	64	4	42	30	30	25	0.31	25	46	4	2
15	Sandaun	Vanimo-Green River	64	3	48	38	30	34	0.36	34	46	4	3
16	Manus	Manus	29	63	86	83	63	83	0.92	83	59	82	83
17	New Ireland	Namatanai	40	35	78	73	51	72	0.77	72	58	81	76
17	New Ireland	Kavieng	44	25	77	72	50	70	0.75	70	58	81	70
18	East New Britain	Pomio	37	42	56	52	43	50	0.51	50	57	79	60
18	East New Britain	Gazelle	31	56	85	82	56	82	0.87	82	57	79	79
18	East New Britain	Rabaul	22	81	95	85	62	85	1	85	57	79	85
18	East New Britain	Kokopo	29	60	89	84	62	84	0.95	84	57	79	82
19	West New Britain	Kandrian-Gloucester	24	78	61	56	37	52	0.52	52	57	69	71
19	West New Britain	Talasea	34	49	75	67	50	67	0.73	67	57	69	74
20	Bougainville	North Bougainville	43	28	80	76	55	76	0.81	76	60	85	77
20	Bougainville	Central Bougainville	55	7	75	67	54	71	0.76	71	60	85	68
20	Bougainville	South Bougainville	23	80	75	67	61	75	0.81	75	60	85	84
<i>Minimum</i>			66	1	21	1	13	1	0	1	46	4	1
<i>Maximum</i>			9	85	95	85	63	85	1	85	60	85	85
<i>Sources:</i> "Income" poverty estimates based on World Bank Poverty Mapping exercise; National Statistics Office, 2000 Census CD (for data on adult literacy and gross enrolment rates); and National Statistics Office, 2003, Recent Fertility and Mortality Indices and Trends in Papua New Guinea: A Report Based on the Analysis of the 2000 Census Data, April (for data on life expectancy at birth)													

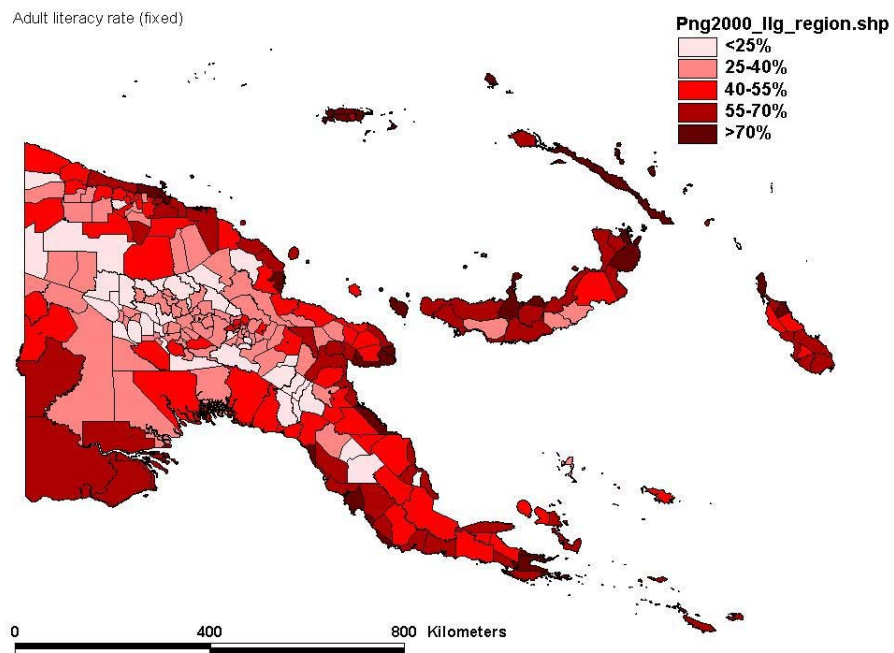
**Table A1.3 PNG : Poverty incidence map (% of population below the national poverty line)**



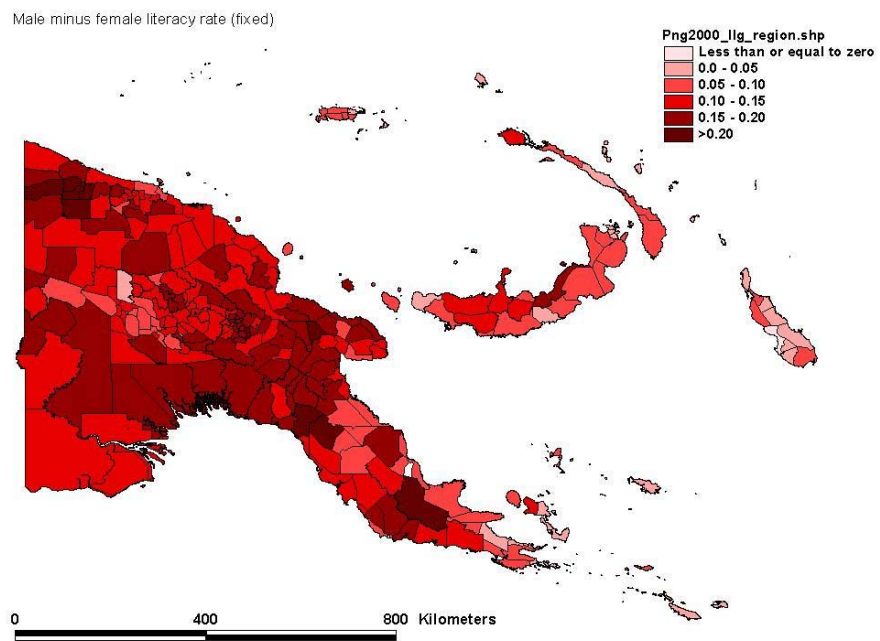
**Table A1.4 PNG : “Income” inequality map (Gini index of consumption per adult equivalent)**



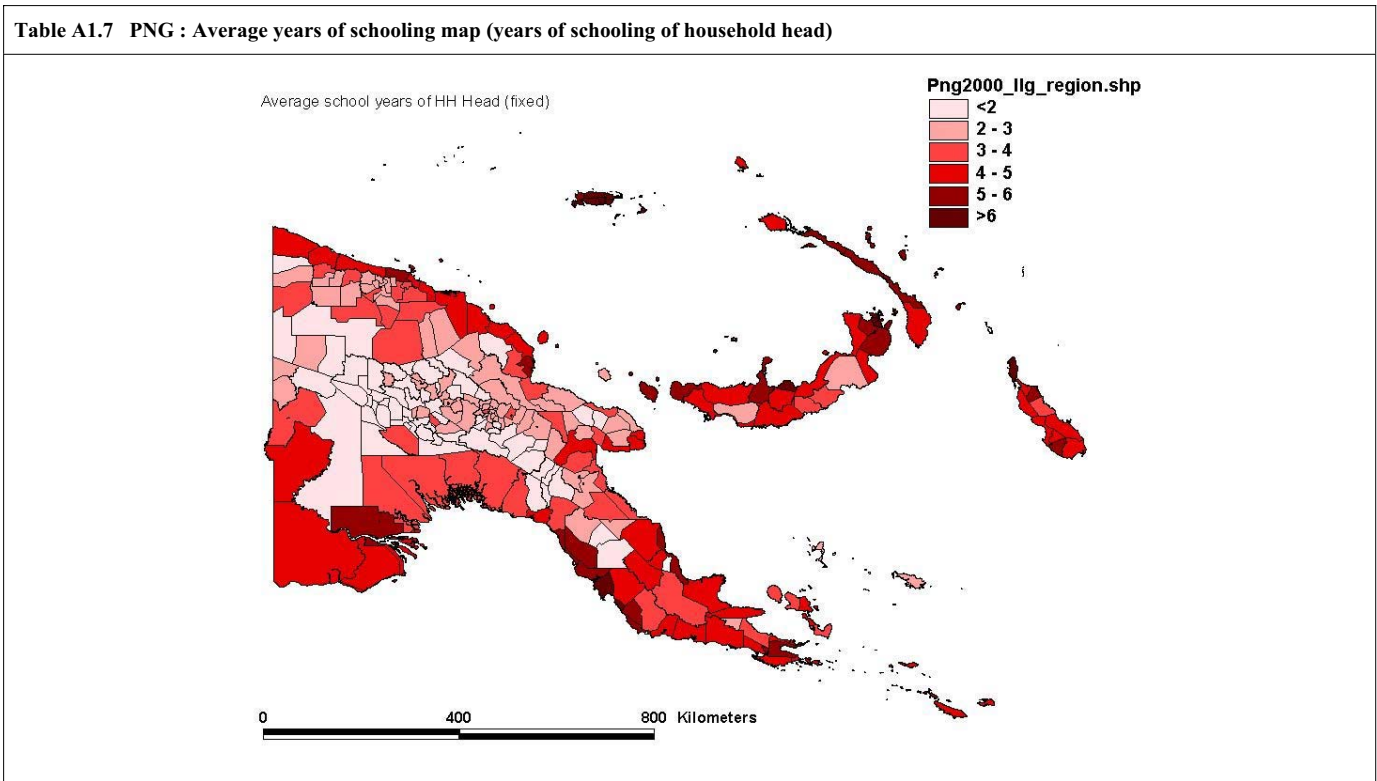
**Table A1.5 PNG : Adult literacy map (% of population age 10 and above who are literate)**



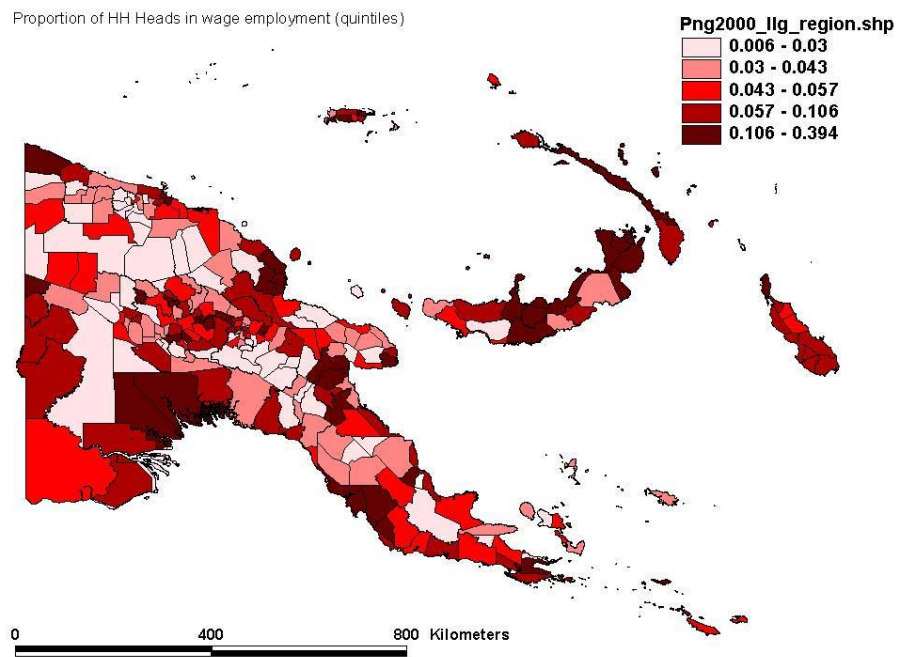
**Table A1.6 PNG : Gender gap in literacy (male minus female literacy rate)**



**Table A1.7 PNG : Average years of schooling map (years of schooling of household head)**



**Table A1.8 PNG : Wage employment map (% of household heads in wage employment)**



## ANNEX 2: PESD DATA AT A GLANCE

<b>Table A2.1: PESD data at a glance</b>					
Total population (2000)	5.2 million				
School-age population (2000)	1.5 million				
Growth rate of school-age population	3 % per annum				
Government expenditure on education as % of GDP (avg. 2000-2003)	5%				
Government expenditure on education as % national budget (avg. 2000-2003)	15%				
Relative contribution to overall spending education of ...					
... government	70%				
... donors	20%				
... parents	10%				
<b>Size of the education sector</b>					
2002					
Number of students:	Number of teachers:		Number of schools:		
Total	1,014,779	Total	32,022	Total	8,284
Primary education	890,680	Primary education	26,731	Primary education	7,916
Size of primary education sector (up to Grade 8)					
% of students			87%		
% of schools			93%		
% of teachers			83%		
% of national education budget			60%		

**Table A2.1: PESD data at a glance**

<b>School facilities</b>								
	All	<i>Poverty Status</i>		<i>Remoteness</i>				
		Poor	Not Poor	Remote	Accessible			
<b>Classrooms</b>								
Number of classrooms per 100 students	3.46	3.47	3.45	3.53	3.40			
Proportion of classrooms								
... which need to be completely rebuilt?	0.33	0.32	0.34	0.36	0.29			
... with a roof that leaks when it rains?	0.37	0.37	0.36	0.40	0.33			
... with electricity that works?	0.07	0.04	0.12	0.01	0.13			
<b>Other infrastructure</b>								
Adequate or good provision (0/1) of ...								
... clear radio reception	0.28	0.27	0.30	0.24	0.32			
... sports equipment	0.42	0.34	0.54	0.36	0.48			
... specialist science classroom	0.01	0.00	0.03	0.01	0.02			
<b>Electricity, water, and sanitation services</b>								
Usable water tank (0/1)	0.55	0.55	0.54	0.41	0.70			
Toilet facilities ...								
... need at least 1 for boys(0/1)	0.42	0.44	0.40	0.34	0.51			
... need at least 1 for girls(0/1)	0.49	0.49	0.48	0.42	0.56			
<b>Access to facilities</b>								
Time to nearest ... (hours)								
... High school or Secondary school	3.93	4.79	2.64	5.67	2.18			
... Bank	4.51	5.17	3.50	7.31	1.73			
<b>School closure and security</b>								
Total number of days the school closed in ...								
... 2001	14.65	16.30	12.27	16.69	12.32			
<b>Teaching resources</b>								
Resource availability ... (0/1)								
... sufficient textbooks for student use	0.23	0.24	0.21	0.25	0.21			
... enough desks for all students	0.52	0.54	0.49	0.54	0.50			
<b>Subsidy leakage</b>								
		2001	2002					
What the school should have received (Kina/student):								
Budget disbursement b/ <i>Estimate I</i>		25	90					
<i>Estimate II</i>		29						
What the school actually received (Kina/student):								
		21	84					
Leakage rate (%), based on:								
Budget disbursement b/ <i>Estimate I</i>		16	7					
<i>Estimate II</i>		29						
<b>Delays in receiving subsidies</b>								
	<u>Quarter 1</u>		<u>Quarter 2</u>		<u>Quarter 3</u>		<u>Quarter 4</u>	
	Schools receiving positive subsidies (%)	Total delay (weeks)	Schools receiving positive subsidies (%)	Total delay (weeks)	Schools receiving positive subsidies (%)	Total delay (weeks)	Schools receiving positive subsidies (%)	Total delay (weeks)
2001	82	9	58	14	36	14	37	15
2002	97	5	73	3				

<b>Table A2.1: PESD data at a glance</b>					
<b>"Ghost" teachers</b>					
	Number of teachers per school in payroll (1)	Number of teachers per school reported (2)	Net "Ghost" teachers per school (1) - (2)	Net "Ghost" teacher rate %	
All schools	7.5	6.4	1.1	14.7	
<b>Teacher absence</b>					
	All teachers	Male teachers	Female teachers		
% of teachers absent on the day of the school visit	15.1	16.3	13.3		
<b>Teacher salaries and allowances</b>					
<b>Salary</b>					
Average salary (Kina/fortnight)				436	
% of teachers paid by cheques				19.4	
% of teachers paid by direct deposits				80.6	
Average salary payment delay (days, incl. zeros)				3.3	
Average salary payment delay (days, for those reporting a delay)				20.9	
Average salary access delay period (weeks)				0.9	
<b>Allowances</b>					
% of teachers receiving additional monetary allowances				43.7	
Average amount of monetary allowances (Kina/year), including zeros				194	
Average amount of monetary allowances (Kina/year), excluding zeros				443	
% of teachers who did not receive allowances they were eligible for				43.6	
Type of allowance not received					
...Responsibility/disadvantaged school/multi-grade/housing				36.9	
...Higher duty				4.3	
...Mining or leave fare or domestic market				2.3	
<b>Student attendance rate</b> (percent)					
	Community Schools		Primary Schools		All Schools
	Grade 1&2	Grade 3-6	Grade 3-6	Grade7-8	Grade1-8
All students	79.5	88.4	83.8	83.6	85.1
Male students	77.8	88.0	83.0	82.7	84.8
Female students	84.5	89.5	86.0	85.1	85.6
<b>Inspector visits</b>					
	Year				
	2000	2001	2002 (to date)		
% of schools with no inspector visits	38.3	35.7	69.1		
<b>Parents' perception of fees</b>					
% of parents	All schools	Schools in poor areas	Schools in remote areas		
...who think ___ should pay for the cost of education					
...government	21	19	20		
...parents	22	22	20		
...both	57	59	60		
...who found school or project fees too high	41	44	46		
...were able to pay the fees set by the school	64	62	56		

**Table A2.1: PESD data at a glance**

<b>Consequence of not paying school fees</b> (% of schools)					
	Exempted	Allowed to pay according to ability	Must leave school	Not allowed to go to next grade	Other
<b>Response by</b>					
... head teacher	10	77	5	1	7
... grade5 teacher	6	67	10	0	18
<b>Board of management</b>					
Average number of meetings in 2001					3.8
Average number of members					8.7
Chair of BOM is the parent of a student (% of schools)					84
<b>Parent participation</b>					
Percent of schools with a PNC					95
Average number of times PNC met in 2001					3
Percent of schools where parents collect assessment reports					57
Percent of parents in those schools who collect reports					65
Percent of parents who attend school meetings when called					57
<b>Community partnership</b>					
<i>Percent of schools where ...</i>					
... children go out to learn in community					35
... community members help develop school programs/activities					60
... teachers organise activities for community members					50
... community members teach cultural activities					27
... school uses village land for agricultural classes					45
... school is used for community meetings					63
... school is used for adult classes					17
... school use for community sports events					71