

FINANCIAL RESOURCES
FOR
RESEARCH AND DEVELOPMENT

1.1: Gross Expenditure on R&D (GERD) in Sri Lanka 1966-2013

Year	GDP current prices Rs.million	GERD Rs. million (US\$ million)	GERD as percentage of GDP	Total population million	GERD per million population Rs. million
1966	7,529	19.8 (4.1)	0.30	11.5	1.7
1975	11,100	45.1 (6.4)	0.40	13.5	3.3
1984	142,700	257.0 (9.7)	0.18	15.6	16.5
1993	499,800	649.0 (13.1)	0.13*	17.6	36.8
1996	769,900	1,410.0 (23)	0.18	18.3	77.0
2000	1,258,000	1,810.0 (22.9)	0.14*	18.4	98.4
2004	1,800,750	3,807.5 (40.9)	0.21	19.4	196.2
2006	2,939,000	5,119.19 (47.9)	0.17	19.8	258.5
2008	4,410,682	5,047.73 (46.1)	0.11	20.2	249.9
2010	5,605,104	8,778.16 (69.4)	0.16	20.7	424.1
2013	8,674,230	9,670.00 (73.3)	0.11	20.4	472.2

Source: National R&D Surveys Sri Lanka 1996 (NARESA), 2000, 2004, 2006, 2008, 2010 & 2013 (NSF)

*Estimates

Trends in Gross Expenditure on R&D (GERD) in Sri Lanka

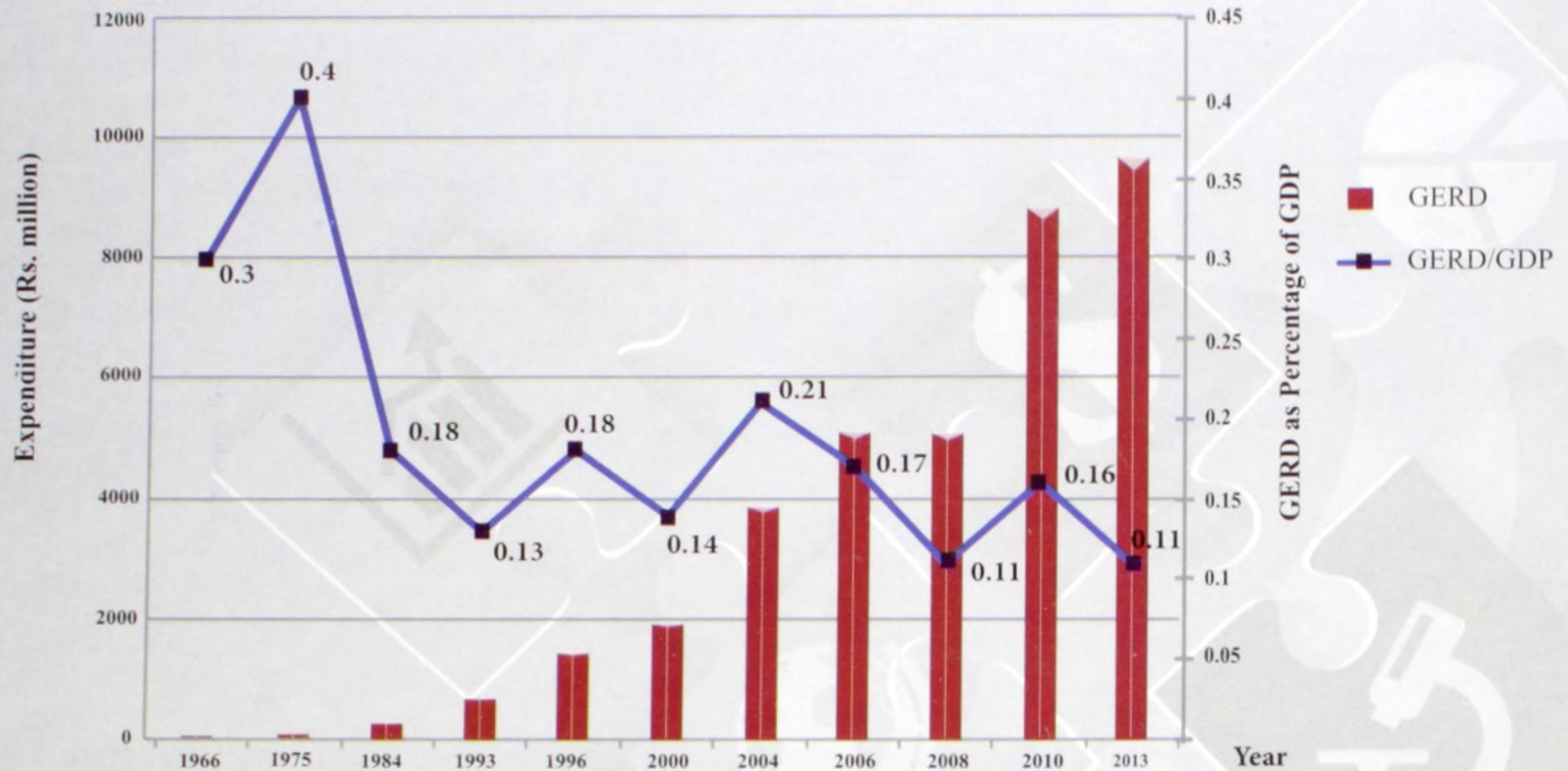


Figure 1

1.2 : Gross Expenditure on R&D (GERD) in selected countries

Country	Year	GERD in Current '000 PPP\$	GERD as a % of GDP	GERD per Capita (in PPP\$)
Australia	2010	20,469,455	2.39	913.6
Brazil	2011	27,430,035	1.21	139.3
China	2012	243,293,041	1.98	176.7
France	2012	54,679,888	2.26	855.2
Germany	2012	100,247,630	2.92	1210.7
India	2011	36,195,513	0.81	29.6
Indonesia	2009	794,886	0.08	3.3
Iran (Islamic Republic of)	2008	5,969,581	0.75	82.2
Japan	2011	148,389,229	3.39	1165.5
Malaysia	2011	4,902,877	1.07	170.5
New Zealand	2011	1,766,589	1.27	400.2
Pakistan	2011	1,526,889	0.33	8.7
Philippines	2007	339,691	0.11	3.8
Republic of Korea	2011	58,379,654	4.04	1198.0
Saudi Arabia	2009	503,225	0.07	18.8
Singapore	2012	6,771,682	2.1	1276.9
South Africa	2010	3,986,395	0.76	77.5
Sri Lanka	2013*	217,544	0.11	10.7
Thailand	2009	1,339,910	0.25	20.2
United Kingdom	2012	39,109,787	1.72	622.9
USA	2012	453,544,000	2.79	1428.5

Source : Adopted from by UNESCO Statistics 2012

* National R&D Survey, Sri Lanka 2013

1.3 National Gross Expenditure on R&D (GERD) by source of funding 2013

Rs.million

Source of Funding	Recurrent	Capital	Total	GERD as a percentage of GDP
Government	4,275.47	934.50	5,209.97	0.06
	(44.21%)	(9.67%)	(53.88%)	
Business enterprise	3,524.11	409.92	3,934.03	0.05
	(36.44%)	(4.24%)	(40.68%)	
Foreign	399.94	86.23	486.17	0.00
	(4.14%)	(0.89%)	(5.03%)	
other	34.68	5.15	39.83	0.00
	(0.36%)	(0.05%)	(0.41%)	
Total	8,234.20	1,435.80	9,670.00	0.11
	(85.15%)	(14.85%)	(100.00%)	

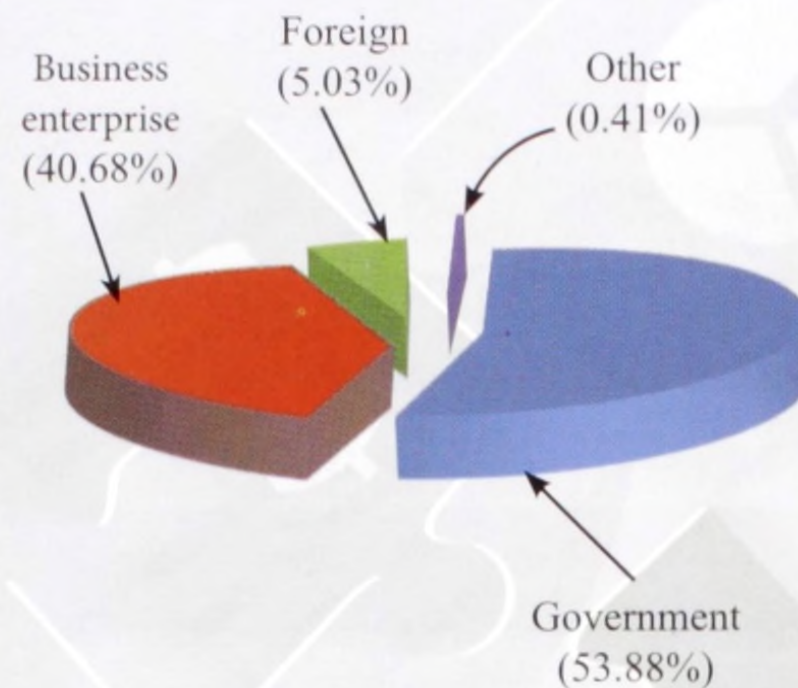
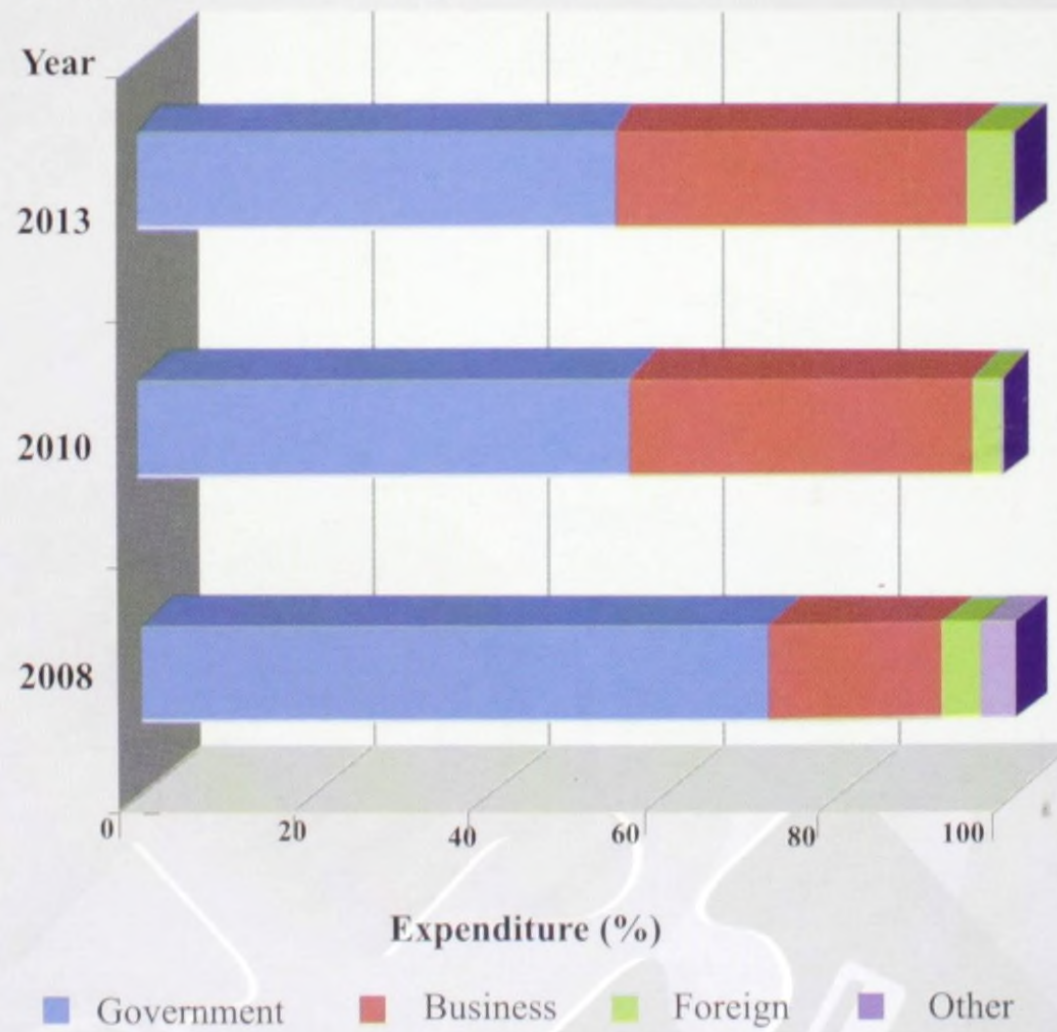


Figure 2

Source: National R&D Survey, Sri Lanka 2013 (NSF)

1.4: Trends in National Expenditure on R&D (GERD) by source of funding 2008-2013

Source of Funding	Rs.million		
	2008	2010	2013
Government	3,624.41 (71.8%)	4,907.16 (55.90%)	5,209.97 (53.9%)
Business enterprise	1,004.01 (19.9%)	3,592.58 (40.93%)	3,934.03 (40.7%)
Foreign	215.59 (4.3%)	239.13 (2.72%)	486.17 (5.0%)
Other*	203.74 (4.0%)	39.29 (0.45%)	39.83 (0.41%)
Total	5,047.73 (100.0%)	8,778.16 (100.0%)	9,670.00 (100.0%)



Sources: National R&D Surveys Sri Lanka, 2008, 2010 & 2013 (NSF)
 *Other: funds generated by the institution itself by providing services etc and funds received from Private Non Profit Sector, and non specified

Figure 3

1.5: Trends in National Expenditure on R&D (%GDP) by source of funding 2004-2013

Source of Funding	% GDP				
	2004	2006	2008	2010	2013
Government	0.14	0.11	0.08	0.09	0.06
Business enterprise	0.00	0.03	0.02	0.06	0.05
Foreign	0.05	0.01	0.01	0.00	0.00
Other*	0.02	0.02	0.00	0.01	0.00
Total	0.21	0.17	0.11	0.16	0.11

Source: : National R&D Surveys Sri Lanka, 2004, 2006, 2008, 2010 & 2013 (NSF)
 *Other: funds from Private Non Profit institution and not defined sources

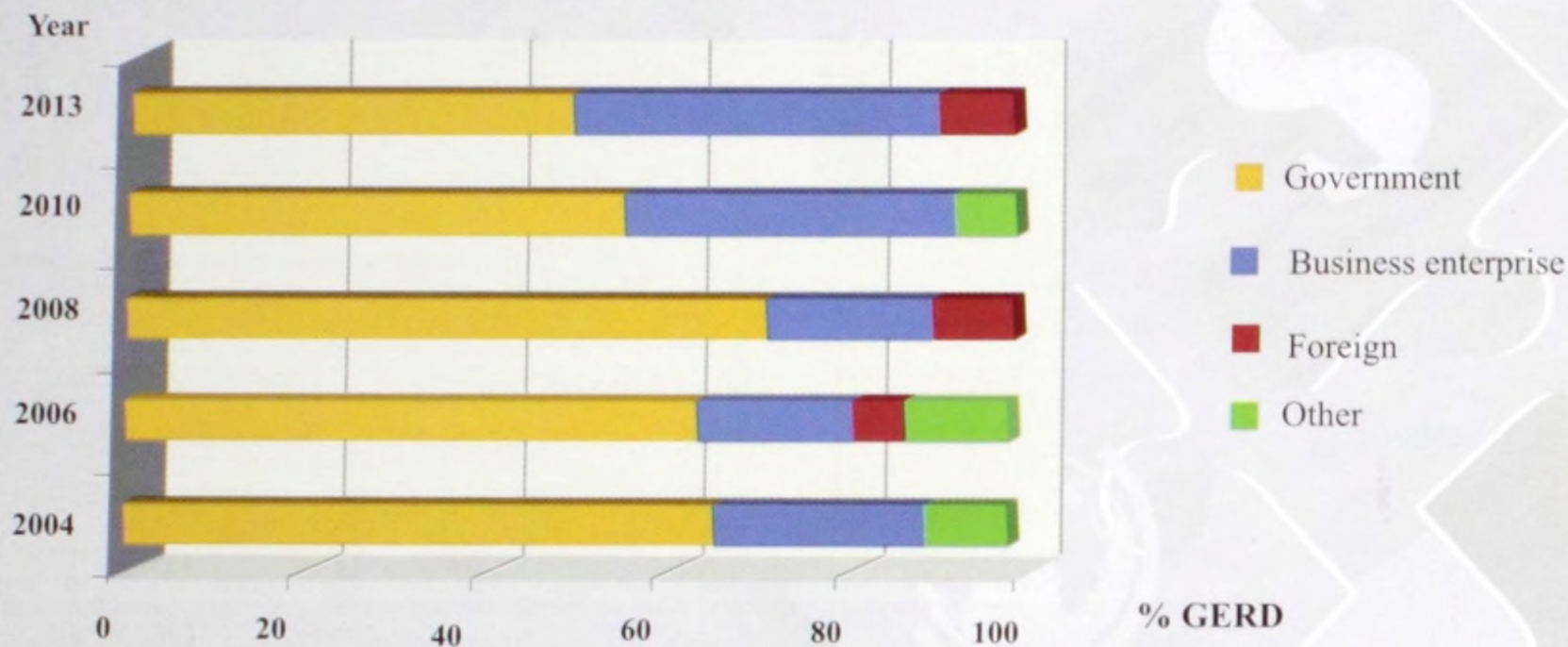


Figure 4

1.6 : National Expenditure on R&D (GERD) by sector of performance 2013

Sector	Recurrent	Capital	Total	%
Government	2,638.84	727.10	3,365.95	34.81
Higher education	1,665.45	265.67	1,931.12	19.97
Business enterprise	3,896.71	442.89	4,339.60	44.88
Private non profit	33.20	0.13	33.33	0.34
Total	8,234.21	1,435.79	9,670.00	100.00

Source : National R&D Survey, Sri Lanka 2013



Figure 5

1.7 : Trends in National Expenditure on R&D (GERD) by sectors 2008-2013

Rs.million

Sector	Year		
	2008	2010	2013
Government	1,250.67 (24.8%)	3,927.90 (44.75%)	3,365.95 (34.81%)
Higher education	2,872.56 (56.9%)	1,008.34 (11.49%)	1,931.12 (19.97%)
Business enterprise	924.50 (18.3%)	3,840.36 (43.75%)	4,339.6 (44.88%)
Private non profit	ne	1.56 (0.01%)	33.33 (0.34%)
Total	5,047.73 (100.0%)	8,778.16 (100.0%)	9,670.00 (100.0%)

Source : National R&D Surveys, Sri Lanka 2008, 2010 & 2013 (NSF)

ne - not estimated

1.8 Percentage Gross Expenditure on R&D (GERD) by sector of performance in selected countries

Country	%GERD				
	Year	Business enterprise	Government	Higher education	Private non-profit
Australia	2010	58.4	12.0	26.6	3.0
China	2012	76.2	16.3	7.6	na
France	2012	64.2	13.7	20.8	1.2
Germany	2012	66.9	14.8	18.3	na
India	2011	35.5	60.5	4.1	na
Indonesia	2009	18.8	43.2	37.9	na
Iran (Islamic Republic of)	2008	10.6	56.1	33.3	na
Japan	2011	77.0	8.4	13.2	1.5
Malaysia	2011	56.7	14.4	28.9	na
New Zealand	2011	45.4	22.7	31.8	na
Pakistan	2011	-	74.7	25.3	na
Philippines	2007	56.9	17.7	23.3	2.1
Republic of Korea	2011	76.5	11.7	10.1	1.6
Singapore	2012	60.9	10.0	29.0	na
South Africa	2010	49.7	22.7	26.8	0.8
Sri Lanka	2013 [*]	44.9	34.8	20.0	0.3
United Kingdom	2012	63.4	8.2	26.5	1.8
USA	2012	69.8	12.3	13.8	4.0

Source : adopted from UNESCO statistics 2012; na - not available; nil- no adequate data

^{*}National R&D Surveys, Sri Lanka 2013(NSF)

1.9 National Gross R&D Expenditure (GERD) by nature of research activity 2013

Rs.million

Nature of research	Higher education	Government	Business enterprise	PNI	Total	%
Basic	107.79	396.93	421.24	33.33	959.29	9.92
Applied	1,430.47	2,673.61	1,414.57	0.00	5,518.65	57.07
Experimental development	392.86	295.41	2,503.80	0.00	3,192.07	33.01
Total	1,931.12	3,365.95	4,339.61	33.33	9,670.00	100.00

Source : National R&D Survey, Sri Lanka 2013 (NSF)

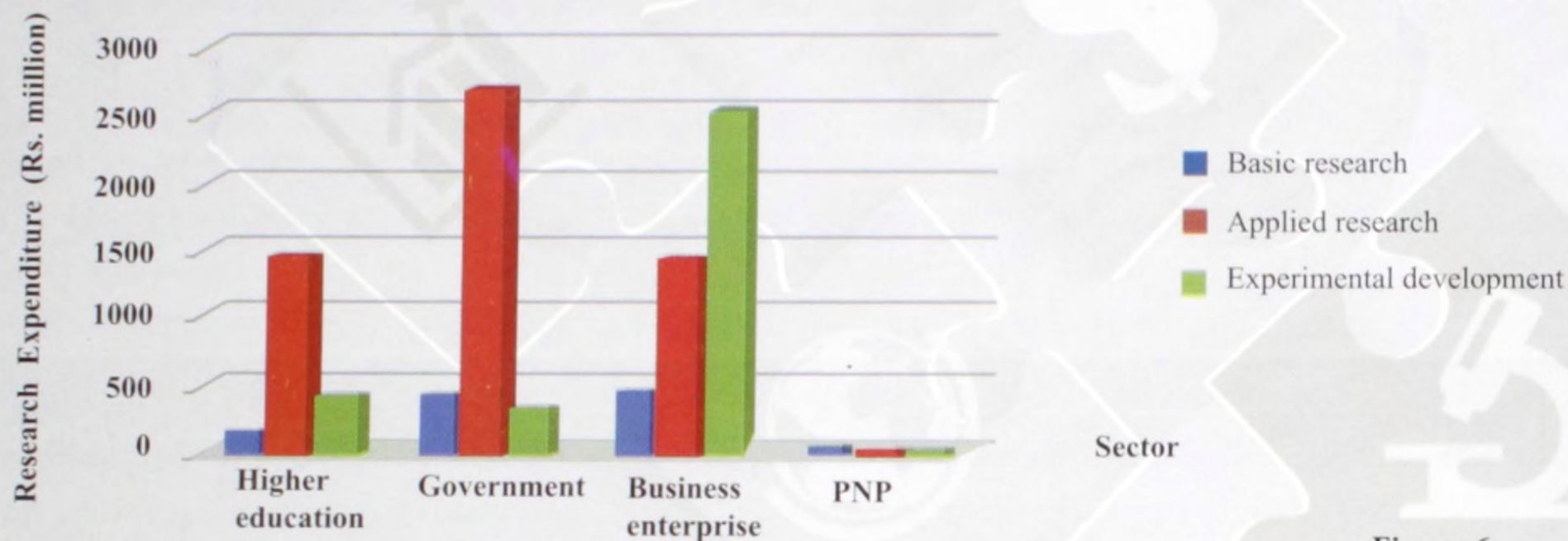


Figure 6

1.10: National Gross R&D Expenditure (GERD) by nature of research activity 2008-2013

Rs.million

Nature of Research	2008		2010		2013	
	Amount	%	Amount	%	Amount	%
Basic research	1,581.1	31.0	956.78	11.0	959.29	10.0
Applied research	2,023.5	40.0	4,302.20	49.0	5,518.65	57.0
Experimental development	1,443.1	29.0	3,519.18	40.0	3,192.07	33.0
Total	5,047.7	100.0	8,778.16	100.0	9,670.00	100.00

Source : National R&D Surveys, Sri Lanka 2006, 2008 ,2010 & 2013 (NSF)

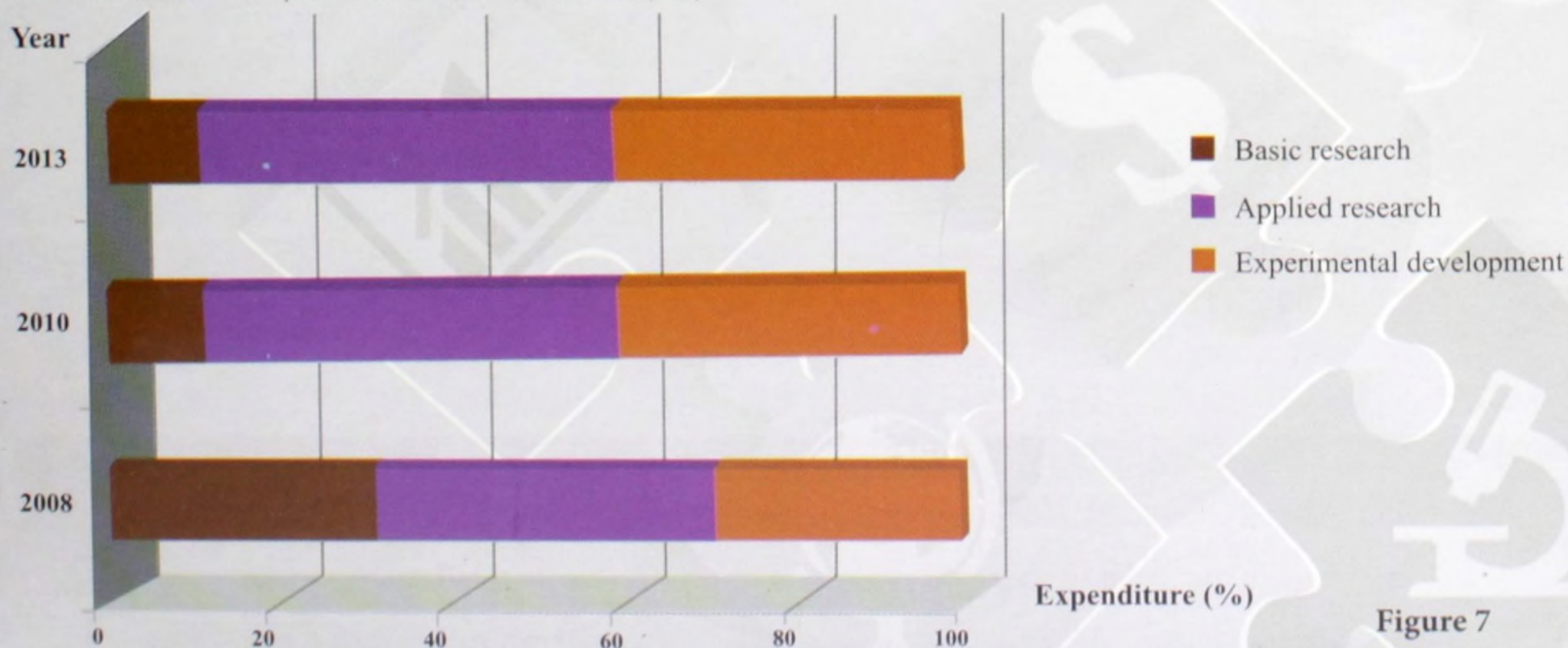


Figure 7

1.11 Percentage GERD by type of R&D activity in selected countries 2008-2010

Country	%GERD				
	Year	Basic research	Applied research	Experimental development	Not specified
Australia	2008	20.1	38.7	41.2	na
China	2012	4.8	11.3	83.9	na
France	2011	24.4	36.9	34.8	3.8
India	2009	16.0	22.3	23.5	38.3
Japan	2011	12.3	21.0	62.1	4.6
Malaysia	2011	17.2	66.4	16.4	na
New Zealand	2011	25.7	41.1	33.2	na
Republic of Korea	2011	18.1	20.3	61.7	na
Singapore	2012	19.6	32.5	47.9	na
South Africa	2010	23.9	39.8	36.3	na
Sri Lanka *	2013	10.0	57.0	33.0	na
Thailand	2009	14.5	37.6	47.9	na
United Kingdom	2011	14.9	48.2	37.0	na
USA	2008	20.1	38.7	41.2	na

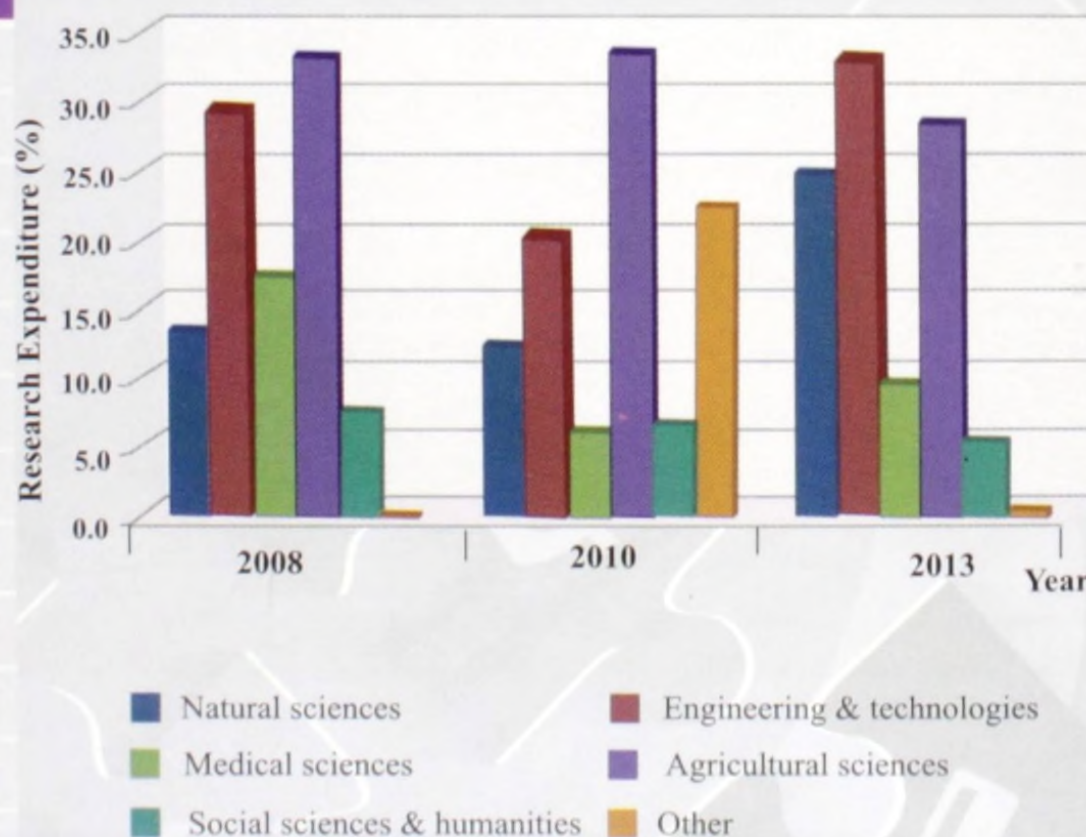
Source : <http://www.uis.unesco.org/ScienceTechnology/Pages/default.aspx>

na- not available; nil- no adequate data

*National R&D Surveys, Sri Lanka (NSF) 2013

1.12: National R&D expenditure by discipline 2008-2013

Discipline	Rs.million		
	Year		
	2008	2010	2013
Natural sciences	645.0 (12.8%)	1,064.11 (12.1%)	2,376.55 (24.6%)
Engineering & technologies	1,490.2 (29.5%)	1,771.38 (20.2%)	3,195.32 (33.0%)
Medical sciences	875.1 (17.3%)	498.62 (5.7%)	904.37 (9.4%)
Agricultural sciences	1,669.6 (33.1%)	2,925.99 (33.3%)	2,693.05 (27.9%)
Social sciences & humanities	367.6 (7.3%)	577.80 (6.6%)	475.77 (4.9%)
Other	0.0 (0.0%)	1,940.25 (22.1)	24.08 (0.2%)
Total	5,047.5 (100.0%)	8,778.16 (100.0%)	9,670.00 (100.0%)



Source : National R&D Surveys, Sri Lanka 2006, 2008, 2010 & 2013 (NSF)

Figure 8