

PNG: Country Diagnostic Study

The views expressed in this paper are views of the author(s) and do not necessarily reflect the views and policies of the Asian Development Bank (ADB), or its Board of Directors or the governments they represent. ADB does not guarantee the source, originality, accuracy, completeness or reliability of any statement, information, data, finding, interpretation, advice, opinion or view presented, nor does it make any representation concerning the same.

I. Study Background and Objectives

Study Context and Objectives

“We will be ranked in the top 50 in the United Nations Human Development Index by 2050, creating opportunities for personal and national advancement through economic growth, smart innovative ideas, quality service and ensuring fair and equitable distribution of benefits in a safe and secure environment for all citizens.”

Government of Papua New Guinea. 2009.

1. Introduce the concept of inclusive growth.
2. Introduce the diagnostic approaches for development planning and prioritization.



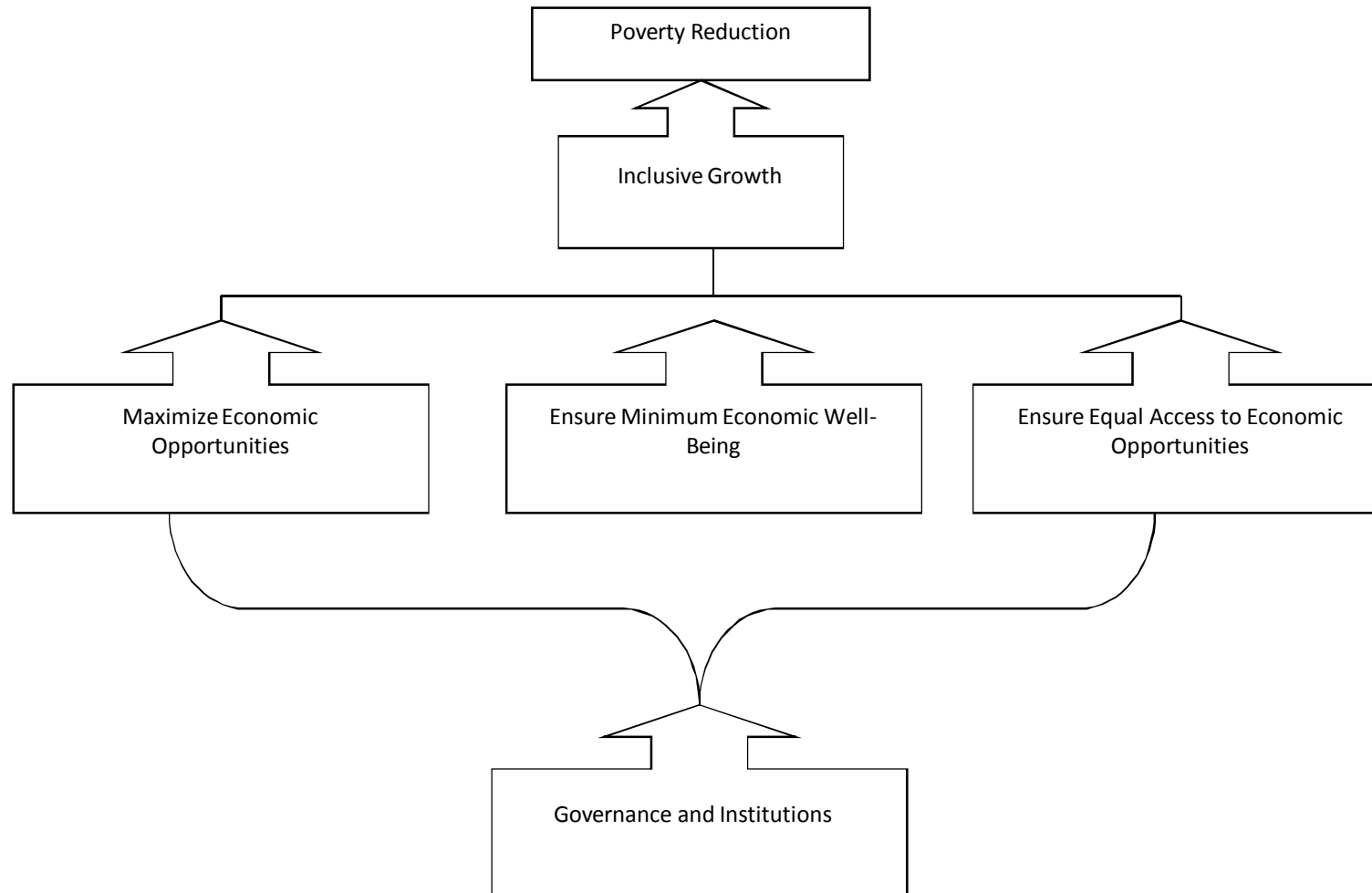
3. Diagnose critical constraints in medium to long term to inclusive growth and propose policy options to overcome these

High and sustained economic growth that is inclusive.

Concept of Inclusive Growth

- **Inclusive growth:**
 - Growth that not only generates economic opportunities, but also ensures equal access to the opportunities by all members of a society.
- **Development strategy based on the inclusive growth concept is anchored on two policy pillars:**
 - High and sustainable growth to create economic opportunities.
 - Social inclusion to ensure equal access to the opportunities by all.

Inclusive Growth Concept

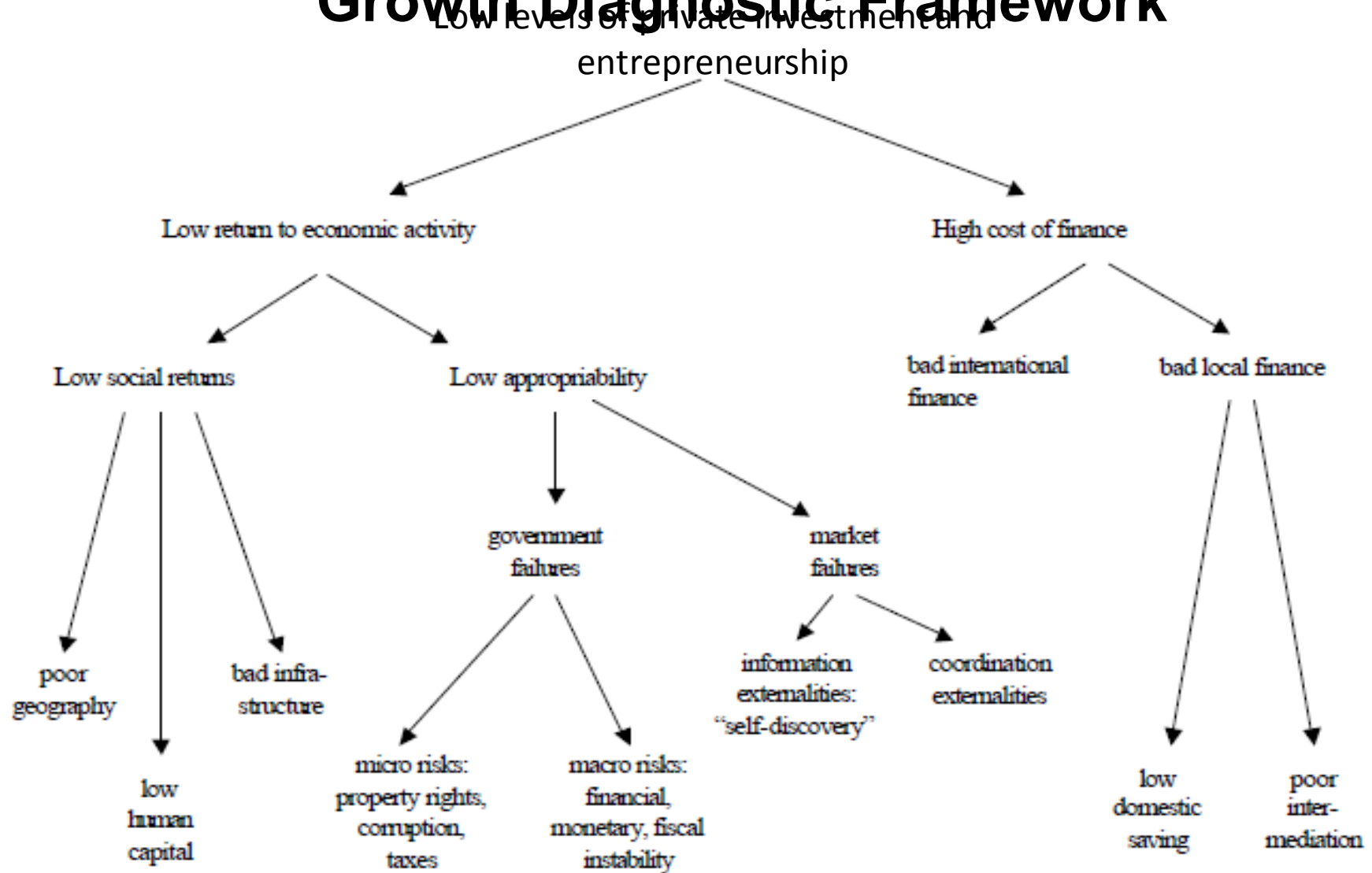


Source: Ali and Zhuang, 2007.

Diagnostic Approaches to Planning

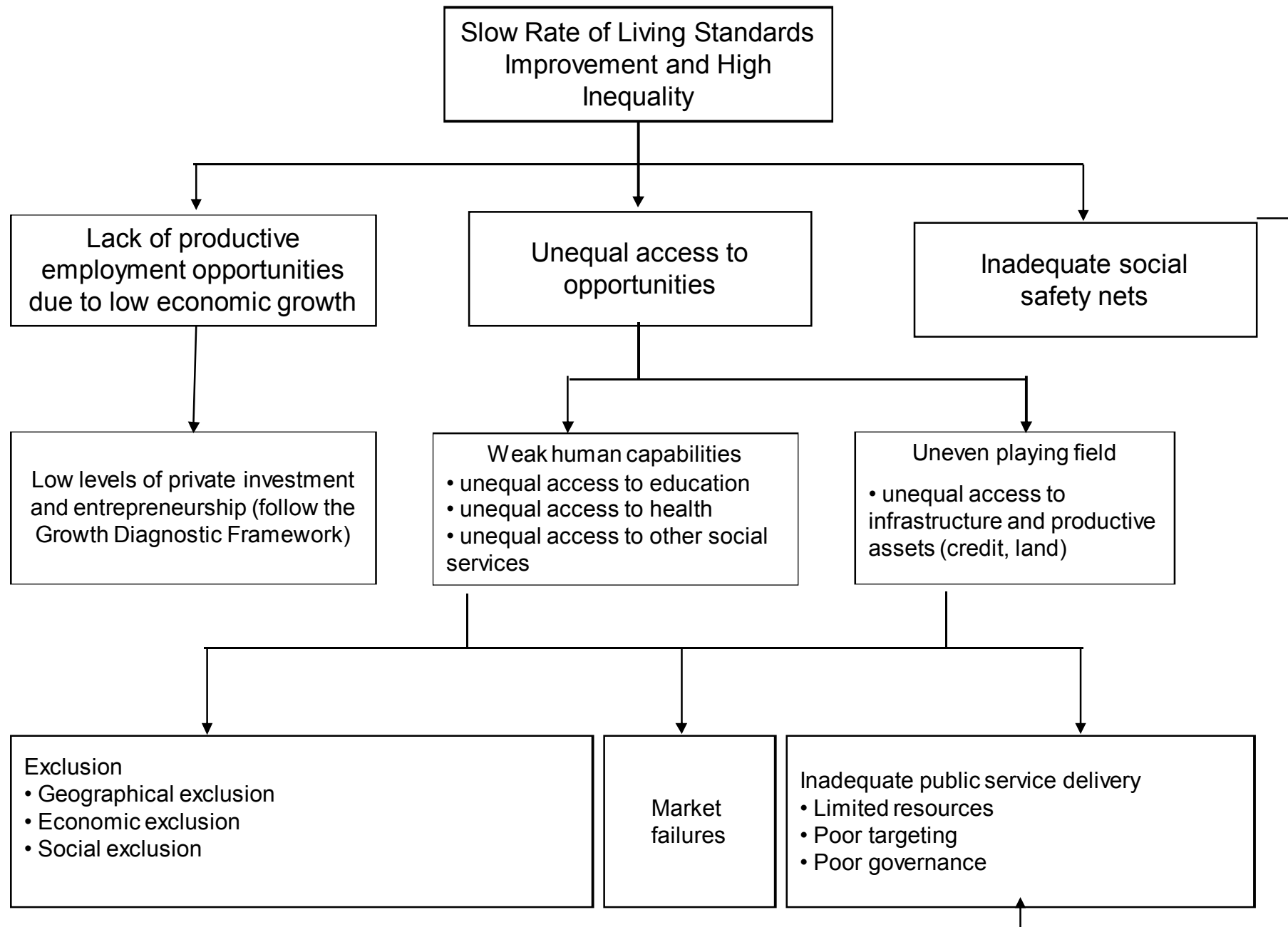
- Why need a new approach to development planning?
 - Disappointments with [Washington Consensus](#)
 - Realization that every country is unique-both in terms of strengths and weaknesses, and also in terms of the constraints that it faces
 - Not all constraints are equally binding and critical.
 - Countries often lack resources to tackle all the constraints simultaneously.
- What does the diagnostics do?
 - Identify the most binding constraints and figure out policy priorities.
- How to identify the most binding constraints?
 - Identify proximate determinants of growth and social development.
 - Figure out which of these are the greatest impediments.
 - Identify the specific distortions behind the impediments.
- Using the following problem trees as a roadmap

Growth Diagnostic Framework



Source: Hausmann, Rodrik and Velaso (2005)

Diagnostic Framework for Inclusiveness



Study Time Line

- Inception workshop (March 2010)
- Four sub-studies (March 2010-March 2011)
 - Analysis of constraints to economic growth
 - Analysis of constraints to social well-being
 - Analysis of governance, institutions and political economy
 - Identification of policy options and reforms
- Consultation Workshop
- Submission of Draft Final Report
- Report Launch (April 2011)

II. Preliminary Findings

Critical Constraints

- I. Lack of productive employment opportunities on account of weak economic activity
 - A. Low social returns to investments
 - 1. Lack of skilled human capital
 - 2. Poor infrastructure (roads, electricity)
 - B. Poor Appropriability of Private Returns
 - 3. Weaknesses in governance and institutions
- II. Limited inclusiveness of economic growth
 - 4. Lack of and unequal access to affordable and quality education.
 - 5. Lack of and unequal access to affordable and quality health services.

1. Lack of Skilled Human Capital

- Labor productivity is one of the lowest in the region and has stagnated in recent years.
- Majority of labor force is unskilled and low in educational attainment
- Employment opportunities in the formal sector are few and are concentrated in the National Capital District
- After governance and infrastructure, lack of skilled human capital is perceived as the third top most constraint by the private sector.

2. Poor Infrastructure

Quality of Infrastructure in PNG lags behind other regional economies

- Poor state of land transport infrastructure
 - Road density is 36 km per 1,000 km² of land, which is low - (Indonesia has 215.8 km/1000 km², Viet Nam 716.5 km/1000 km² and Solomon Islands 49.7 km/1000 km²).
 - Quality of road networks is poor especially at provincial level.
 - Cost of transportation is high both in terms of financial outlays and time.
- Lack of access and reliable provision of electricity
 - Electrification rate and consumption levels are one of the lowest in the region.
 - Cost of electricity is one of the highest in the region.
- Poor infrastructure was identified as the second most critical constraint after governance considerations by private investors (INA Survey 2008).

3. Weaknesses in Governance and Institutions

1. Weak institutions have affected government effectiveness in the delivery of services – both infrastructure and social
 - Capacities to plan and implement development activities especially at the provincial levels are weak
 - Government effectiveness is low in comparison to other countries and is deteriorating
2. According to the INA Survey, weaknesses in governance are deterring private investment - private sector rated governance as top constraint in doing business (1st is law and order, 2nd is corruption and 3rd is political uncertainty)
 - Law and order situation is deterring investment
 - High crime victimisation rates (9.7% in 2008)
 - Large variance in arrest rates between regions (e.g. Southern 77%

3. Weaknesses in Governance and Institutions

- Corruption is an impediment to investment
 - Control of corruption is low and deteriorating in comparison with other countries (World Bank data)
 - PNG ranked 154 out of 180 countries in control of corruption (Transparency International)
 - Community surveys suggest over 80 percent of communities believe corruption is increasing (CSO, 2008)
- Policy instability is a concern of private investors
 - survey results show that 90% of business owners are still concerned about changes in political set-up and about 80% are concerned about retroactive changes to laws and regulations governing business.

4. Lack of and unequal access to affordable and quality education

- Educated workers have better access to non-farm employment opportunities.
- Educational attainment level remains low in PNG in comparison with neighboring countries and also there are large disparities within the country.
- Despite the progress, access to schooling remains limited and is characterized by great disparities across the country.
- Retention of students continues to be a challenge and the quality of education varies across the country.

5. Lack of and unequal access to affordable and quality health services

- Health outcomes are poor and pace in their improvements is slow.
- PNG also faces a significant variation in people's health across the country.
- While the causes of poor health outcomes are largely preventable and treatable with basic health services, access to health care remains limited and unequal across the country.

Constraints but not Critical

1. Access to Finance

- A number of initiatives have helped improve access to both saving and lending services in recent past.
- Although lending and deposit rates have declined, these remain higher than levels in 1990s and in other countries.
- Private sector which considered cost of finance as one of the top three constraints in 2002 did not consider it as that critical in 2007.
- Small and micro enterprises still have difficulty in accessing affordable financing.

2. Provision of Social Safety Nets

- Government provision of social safety nets is limited in PNG in comparison with other countries in the region.
- Traditional support systems continue to play a key role. However, these are increasingly under great stress, due to rising cost of living, urbanization, and spread of HIV/AIDS etc.

3. Difficulty in Doing Business

- PNG ranked 103 in ease of Doing Business Index which suggests need for reforms. However, it is better than countries like Philippines (148) and Indonesia (121). [Doing Business 2011]

Critical Constraints

- I. Lack of productive employment opportunities on account of weak economic activity
 - A. Low social returns to investments
 - 1. Lack of skilled human capital
 - 2. Poor infrastructure (roads, electricity)
 - B. Poor Appropriability of Private Returns
 - 3. Weaknesses in governance and institutions
- II. Limited inclusiveness of economic growth
 - 4. Lack of and unequal access to affordable and quality education.
 - 5. Lack of and unequal access to affordable and quality health services.

Washington Consensus

Original Washington Consensus:

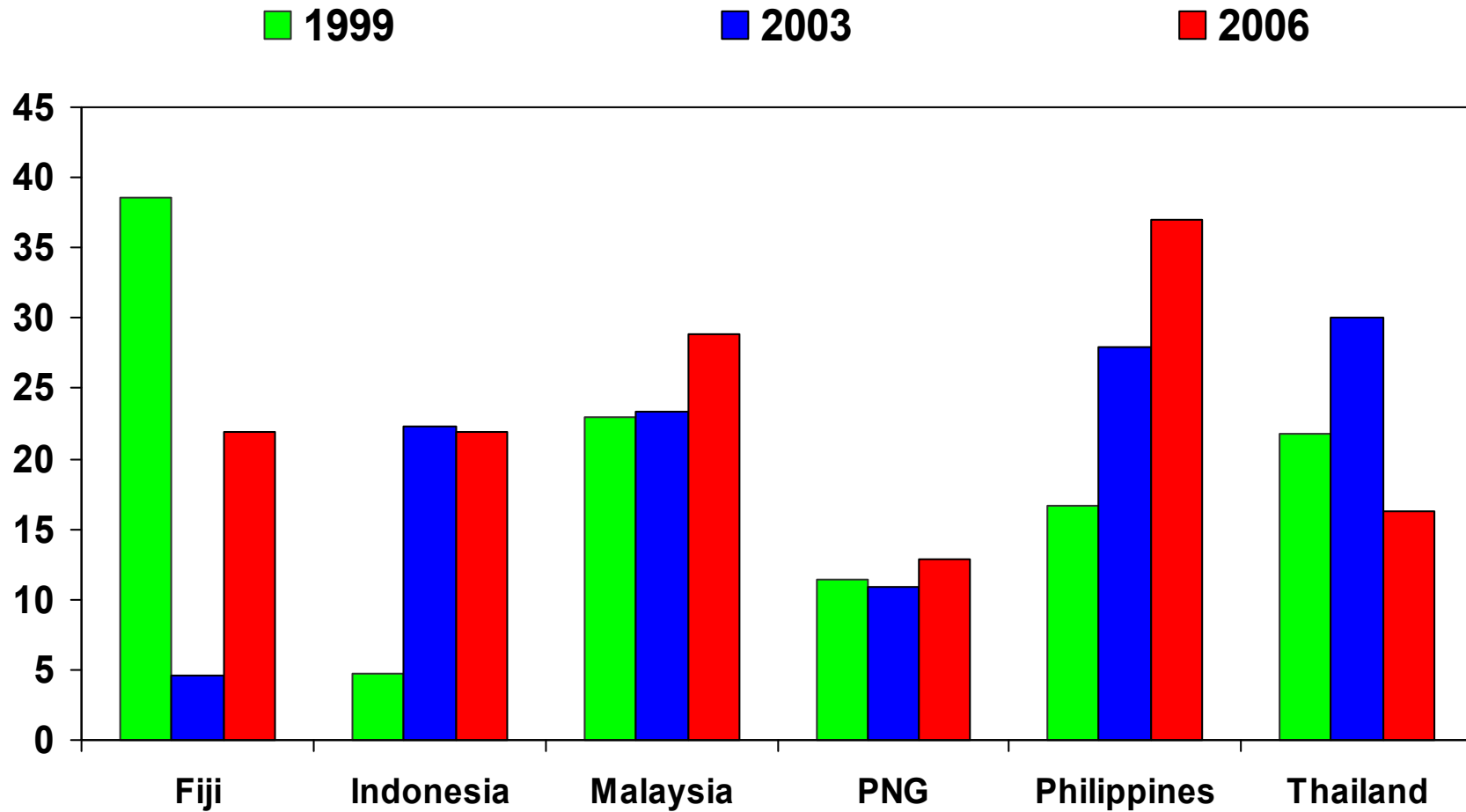
1. Fiscal discipline.
2. Reorientation of public expenditures.
3. Tax reform.
4. Financial liberalization.
5. Unified and competitive exchange rates.
6. Trade liberalization.
7. Openness to FDI.
8. Privatization.
9. Deregulation.
10. Secure property rights.

“Augmented” Washington Consensus, 1-10 plus:

11. Corporate governance.
12. Anti-corruption.
13. Flexible labor markets.
14. WTO agreements.
15. Financial codes and standards.
16. “Prudent” capital-account opening.
17. Corner exchange rate regimes.
18. Independent central banks.
19. Social safety nets.
20. Targeted poverty reduction.



Social Returns to Investment, %

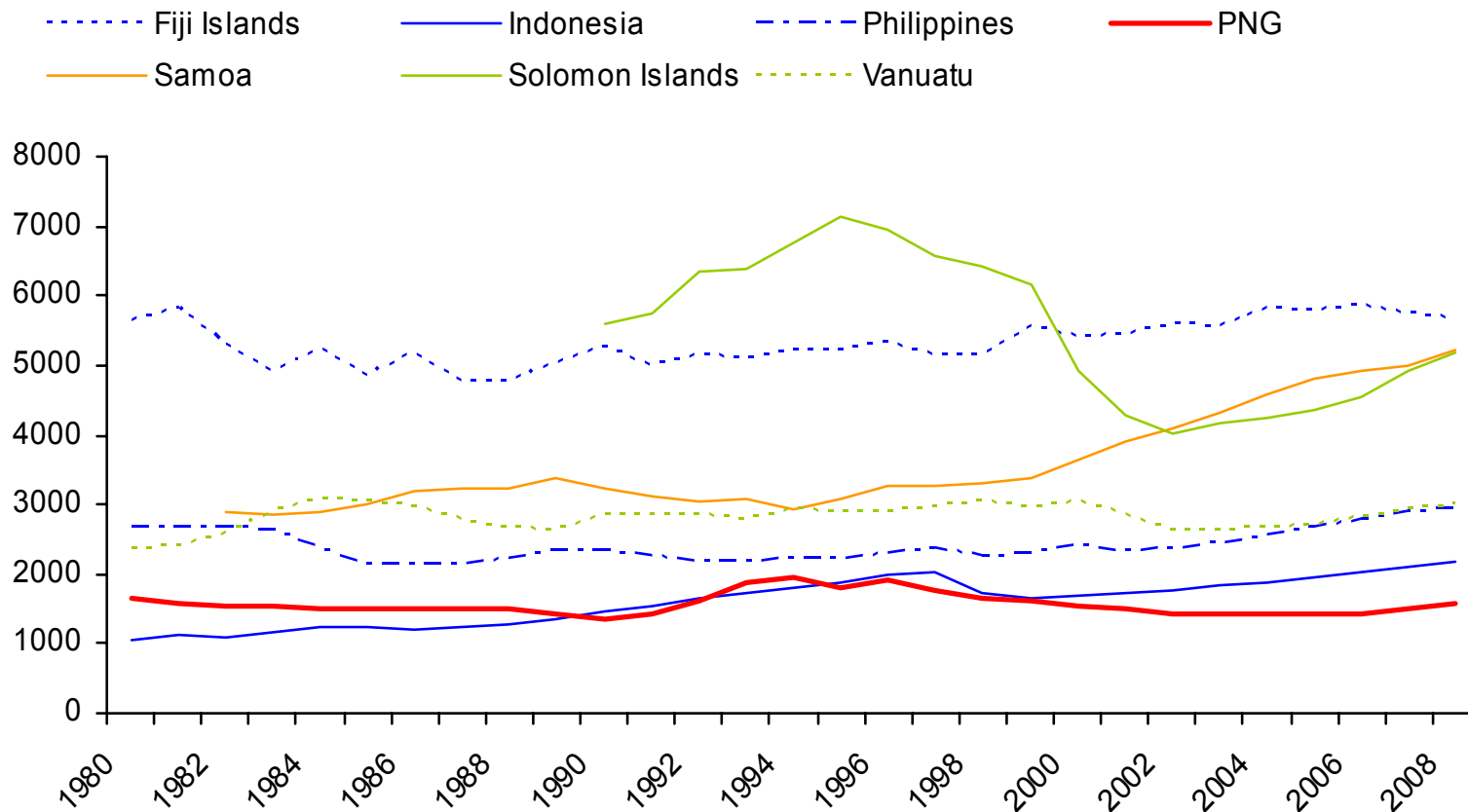


Source: Estimates based on WDI



Labor Productivity

(1980-2008, GDP in 2000 \$/Labor Force)



Source: World Bank. World Development Indicators, accessed on 18 October 2010.

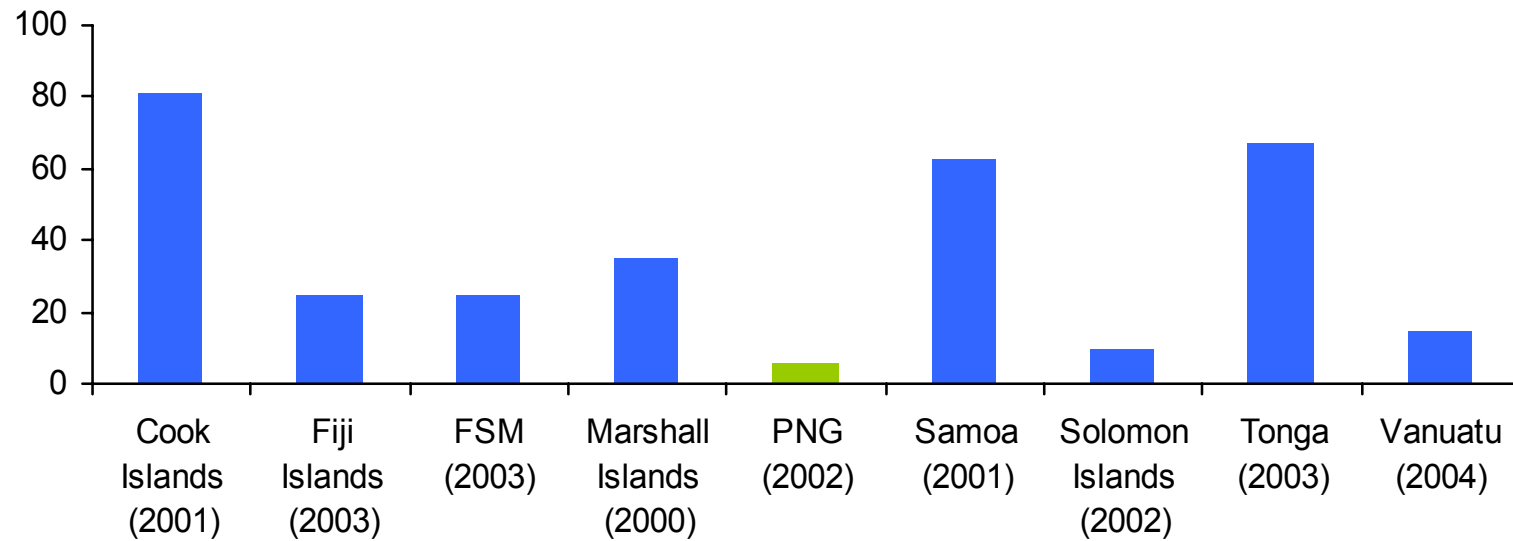


Proportion of Population Over 15 with Qualifications

	% of population over 15			
	Total	Male	Female	Urban
Some education but no post-secondary qualifications	45.6	50.1	41.1	64.3
Of which attained Grade 10-12	6.8	8.5	4.9	19.4
Post secondary qualification	5.3	7.1	2.6	16.9
Of which university degree	0.4	0.7	0.1	2.2

Source: Booth 2009 (Census 2000), Author's estimates

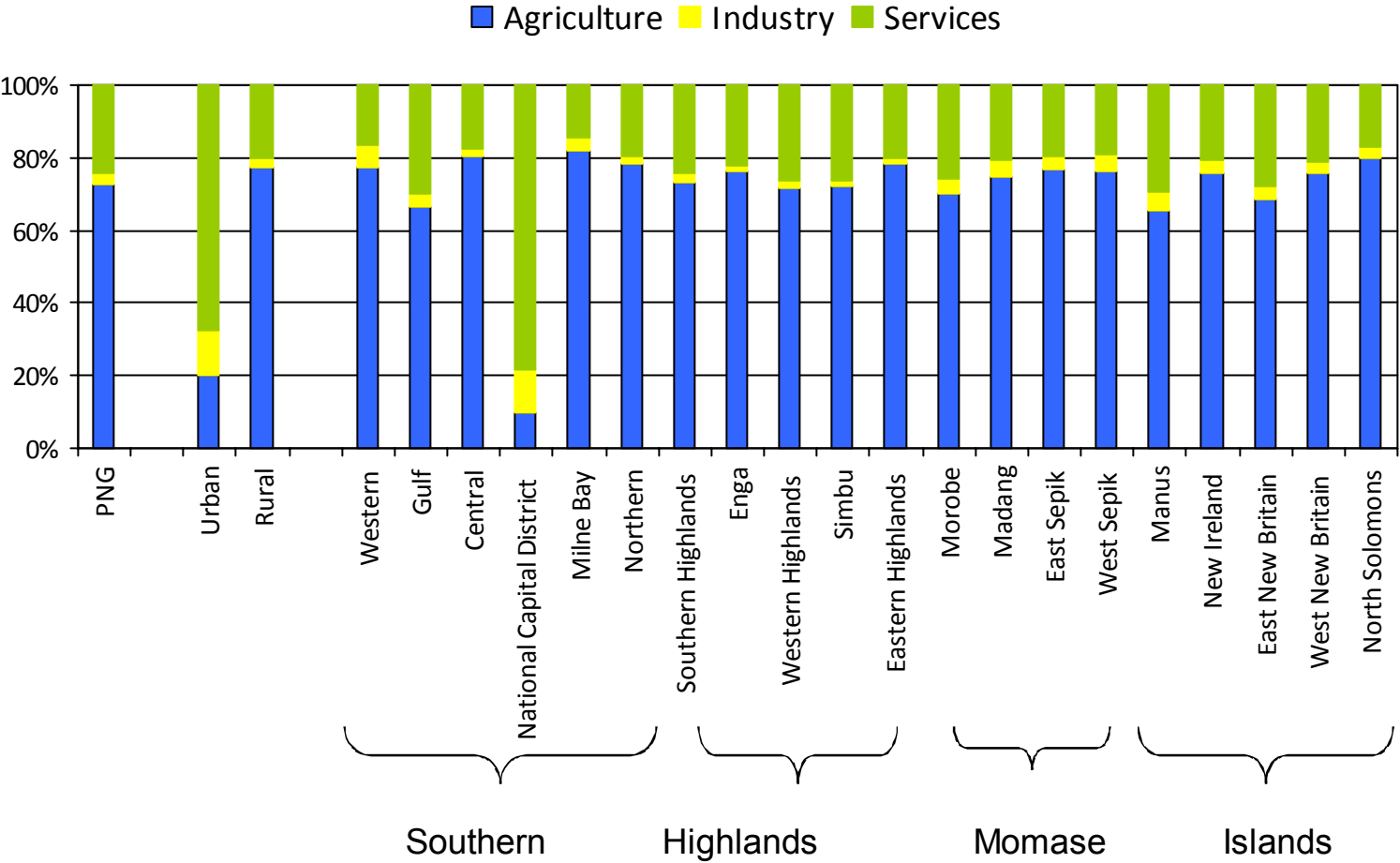
Ratio of Formal Sector Employment to Working-Age Population (%)



Source: Duncan et al. (2006).



Distribution of Employed by Industry (2000)



Source: PNG 2000 Population and Housing Census.



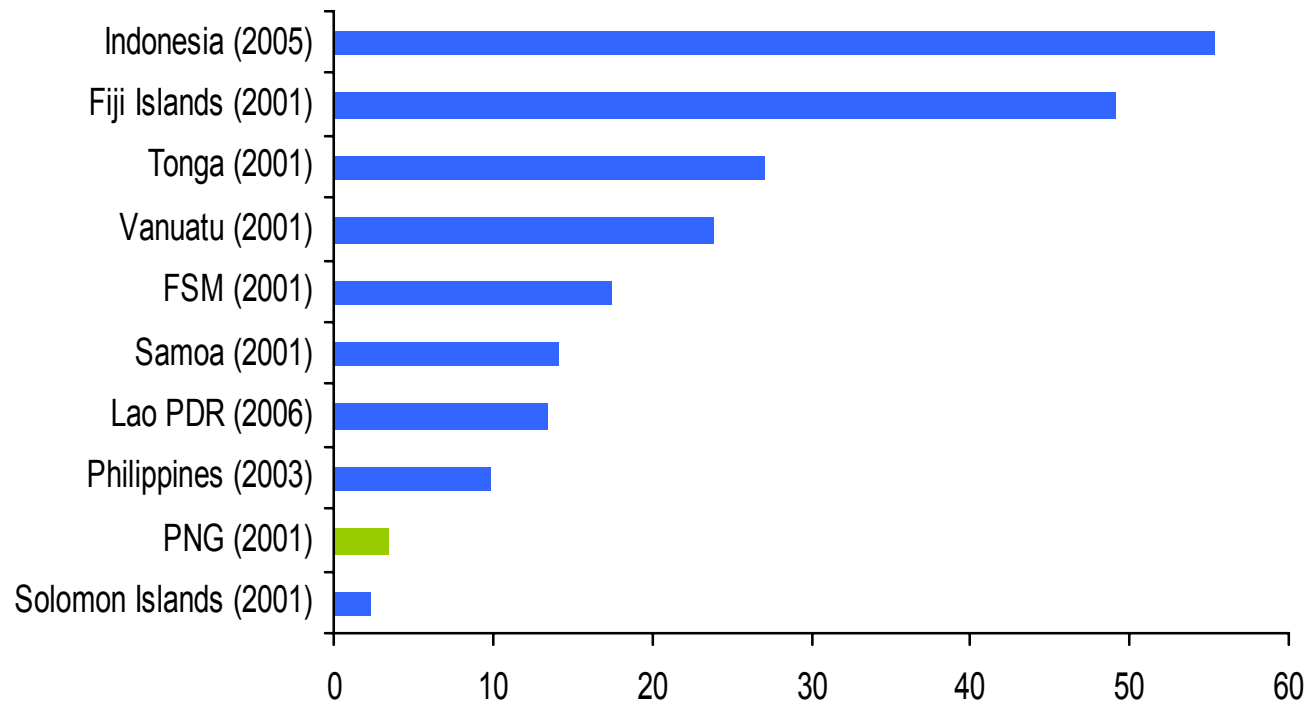
Infrastructure quality continues to lag behind

Logistics Performance Index Rankings

Rank out of 155 countries	Viet Nam	Indonesia	PNG	Botswana	Mongolia
Overall LPI Rank	53	75	124	134	141
Infrastructure Rank	66	69	135	119	133

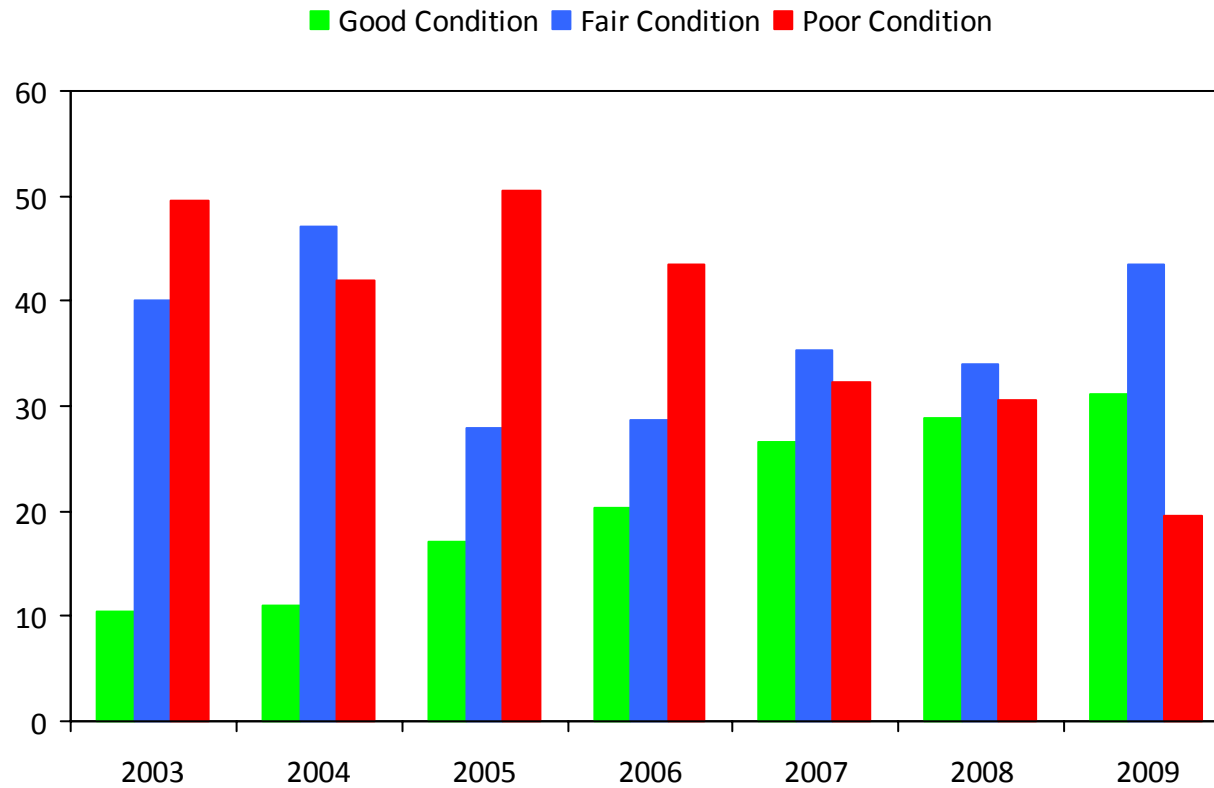
Source: LPI 2010 (World Bank)

Paved Roads (% of Total Roads)



Source: World Bank. World Development Indicators, accessed on 15 October 2010.

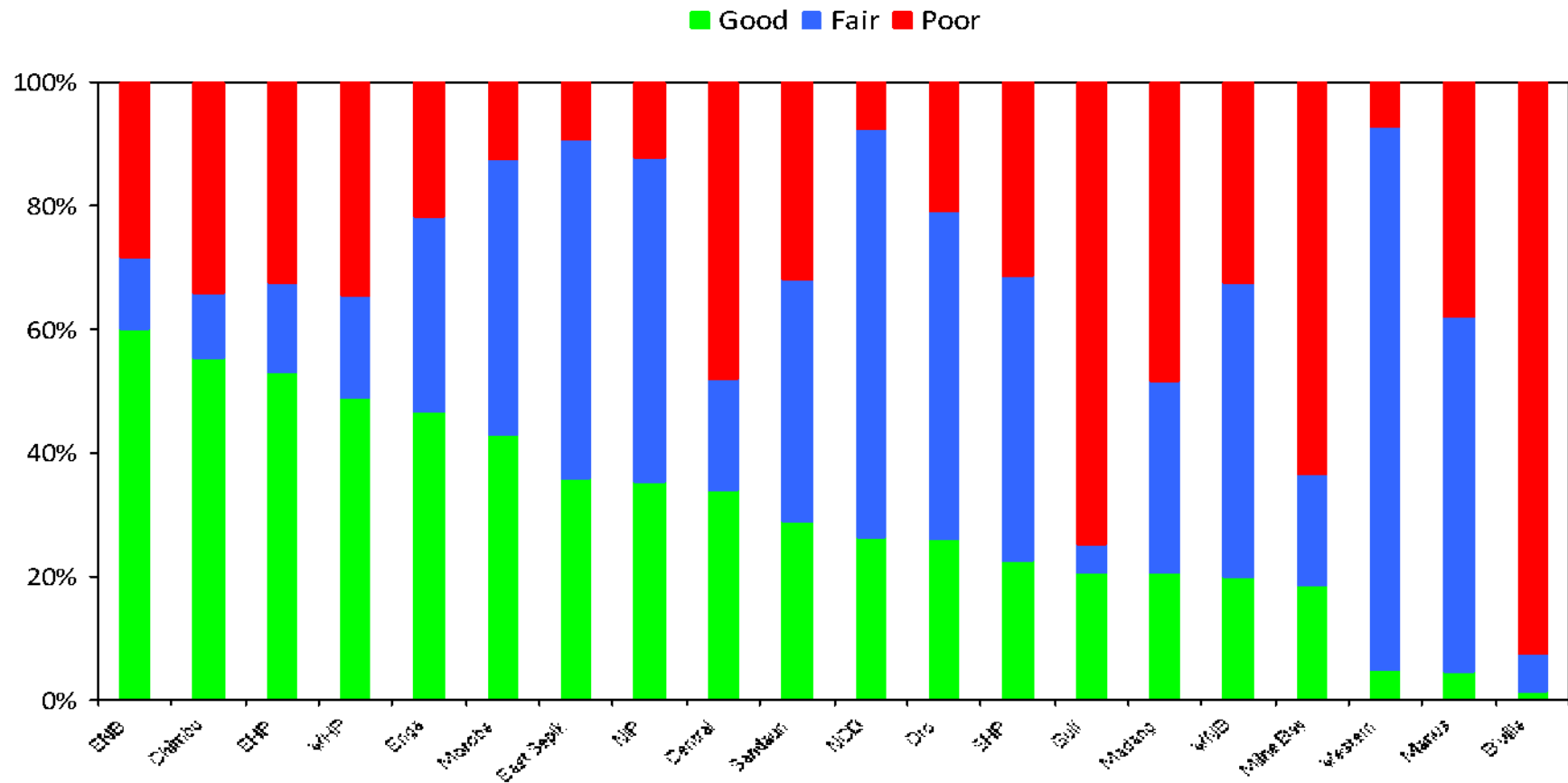
Condition of the National Road Network



Source: RAMS, 2008.

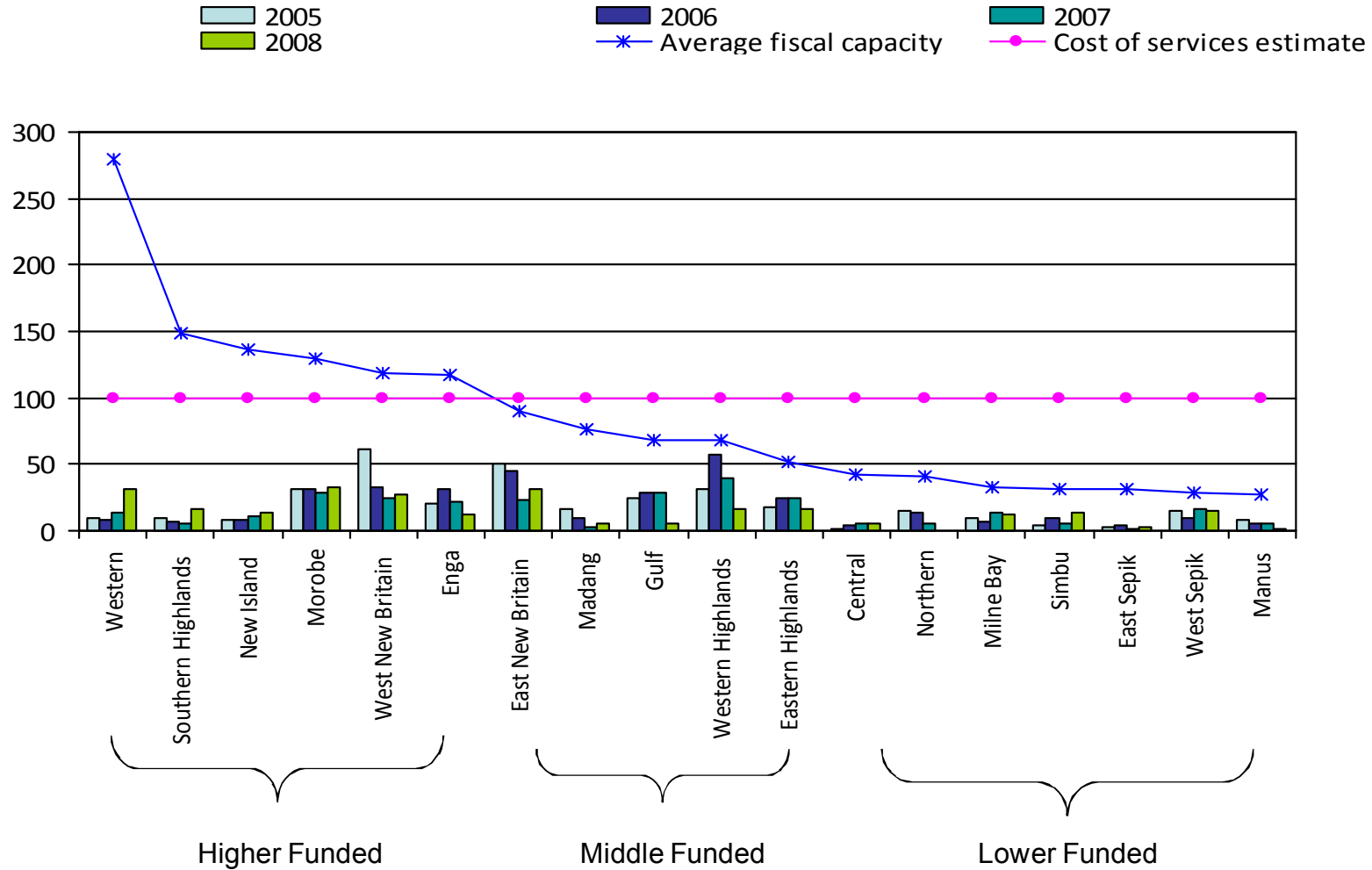


Conditions of National Roads (by province, 2008)



Source: RAMs, 2008.

Transport Infrastructure Maintenance Spending Performance by Province, 2005-2008 in %



Source: NEFC, 2009.



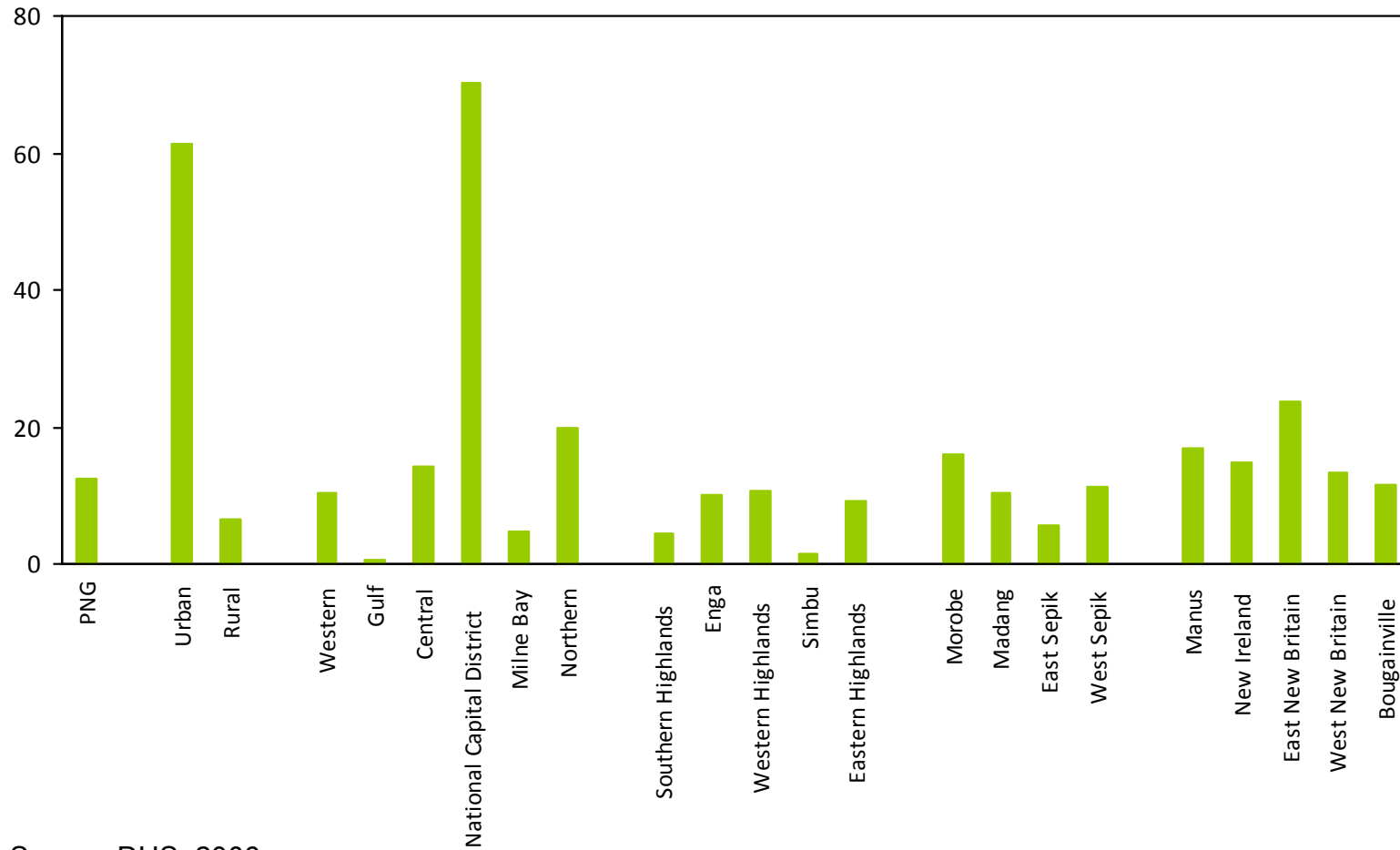
Traveling Time to Roads and Transportation Facilities in Major Rural Regions (1996, minutes)

	Nearest road	Nearest transportation, including nearest road, airport, or boat dock
Papuan/South Coast	93	57
Highlands	256*	53
Momase/North Coast	95	76
New Guinea Islands	67	21

Source: Gibson and Rozelle, 2003.



Household with Access to Electricity (2006, %)



Source: DHS, 2006.



Comparison of Cost, Access and Consumption of Electricity

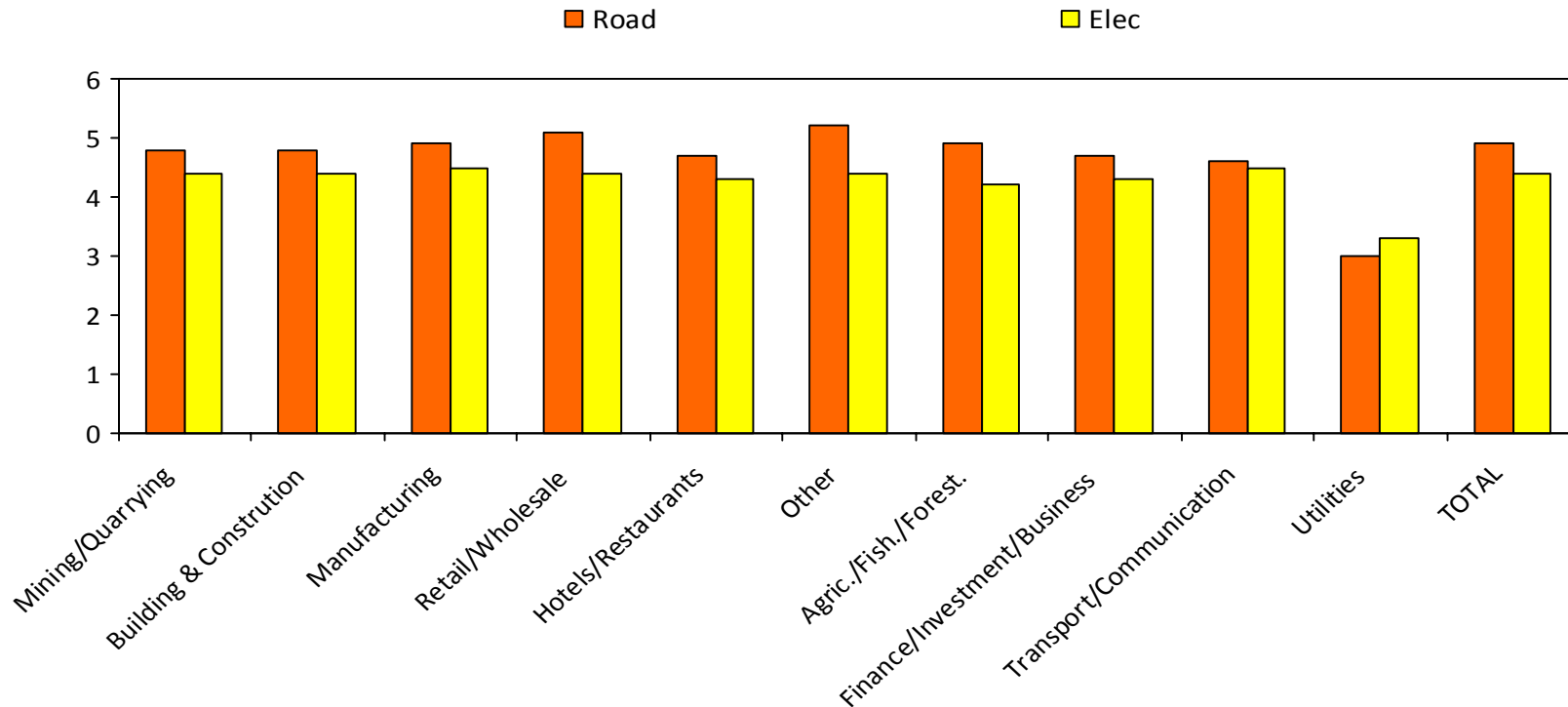
	Access to Electricity ^[1]	Tariffs (US cents/kWh) ^[2]			Consumption
	Household (%)	Commercial	Industrial	Domestic	Per Capita (kWh)
PNG	12.4	10.0	5.3	5.4	133
Indonesia	91.1	385
Viet Nam	96.1	9.9	5.8	5.9	273
Mongolia	86.2	3.7	3.9	3.7	796
Malaysia	97.3	5.5	5.1	5.3	2602

^[1] For Access to electricity years are as follows: Vietnam (2005), Mongolia (2005), Indonesia (2007), Malaysia (2000), PNG (1996).

^[2] Where pricing differs by load or by supplier an average was taken.



Survey Results on Effectiveness of Infrastructure Services

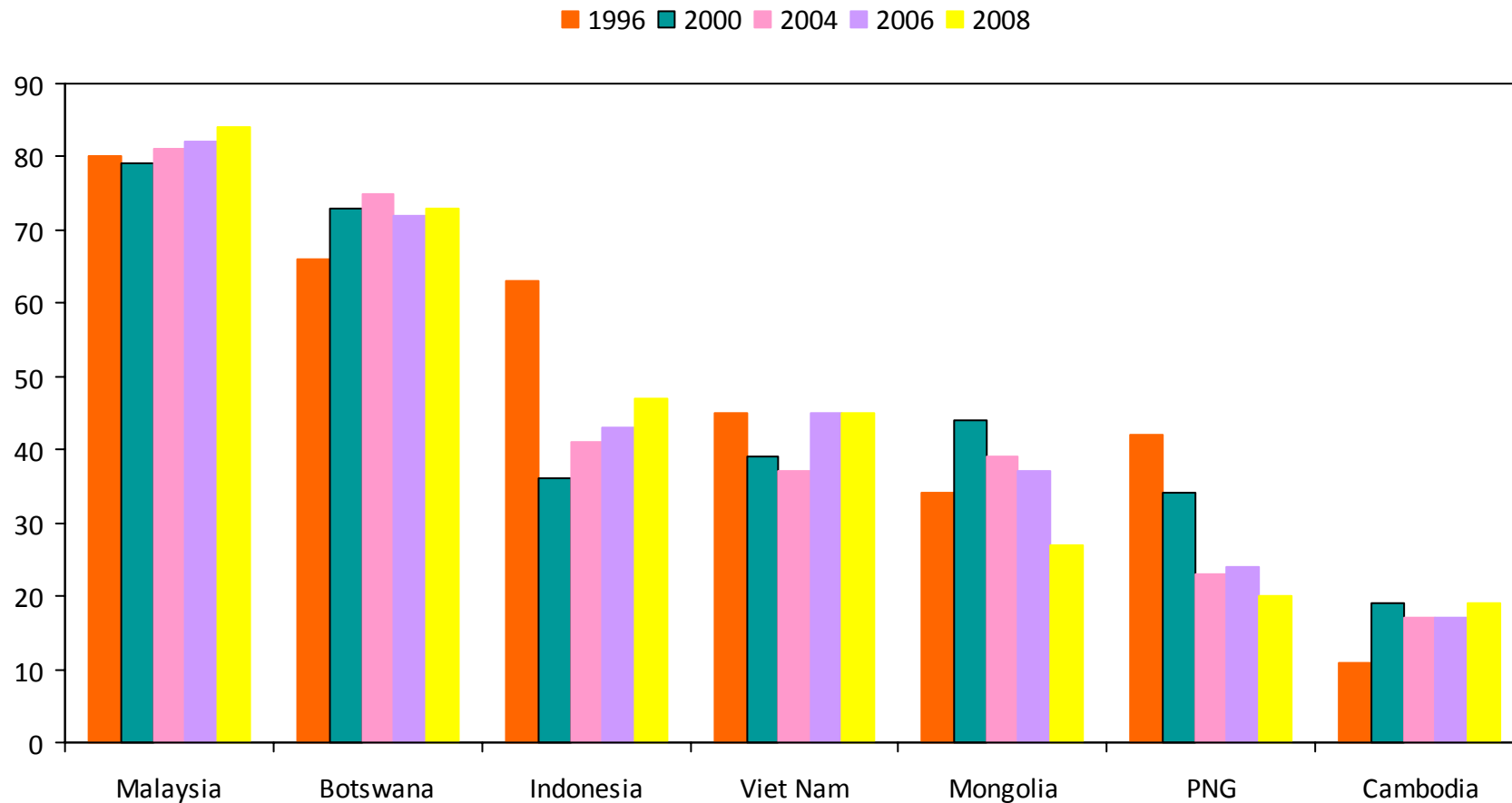


Note: 1=very good, 6 = very poor

Source: INA Survey 2008



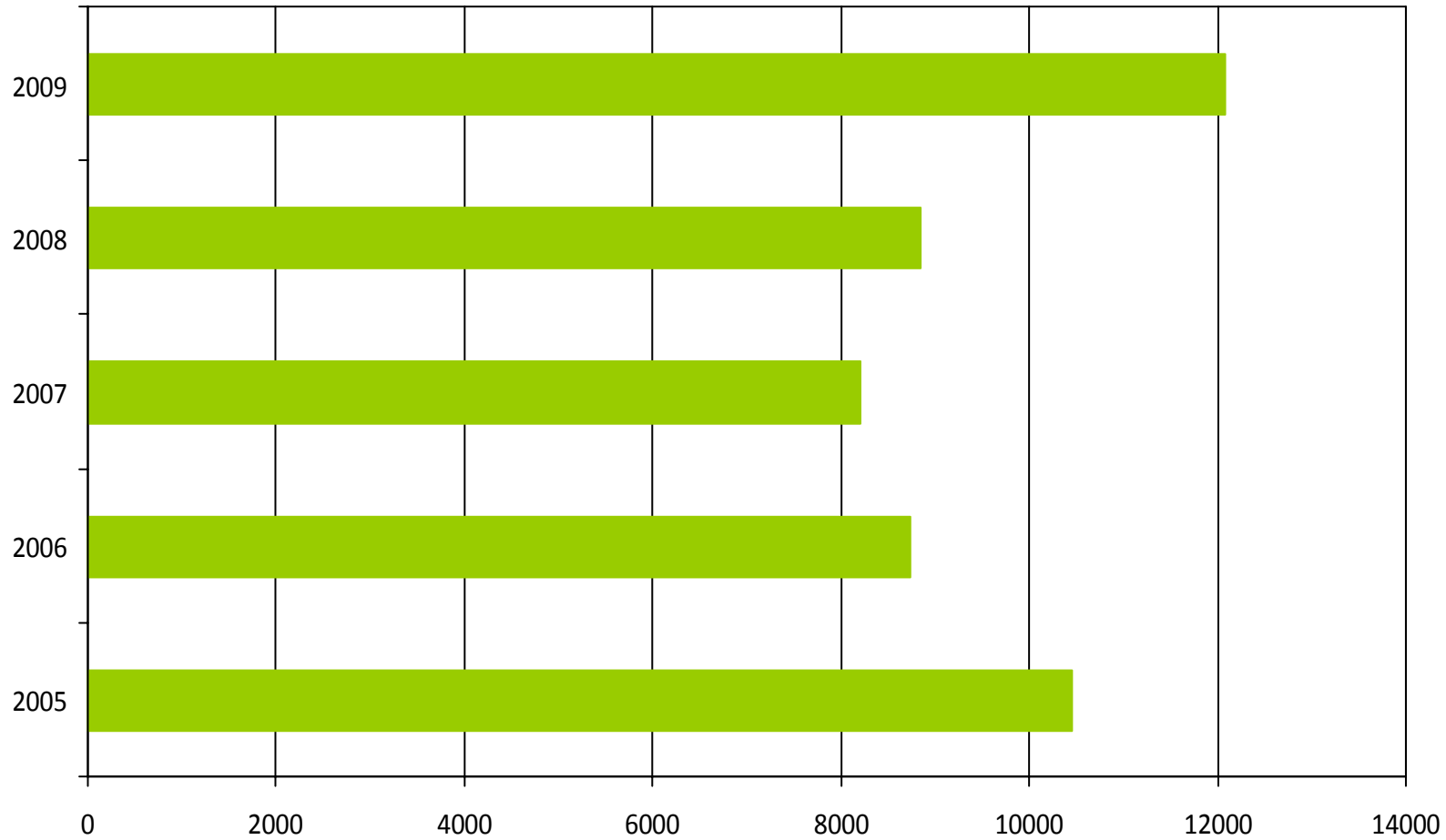
Comparison of Government Effectiveness (in percentile ranking)



Source: World Bank Governance Indicators.

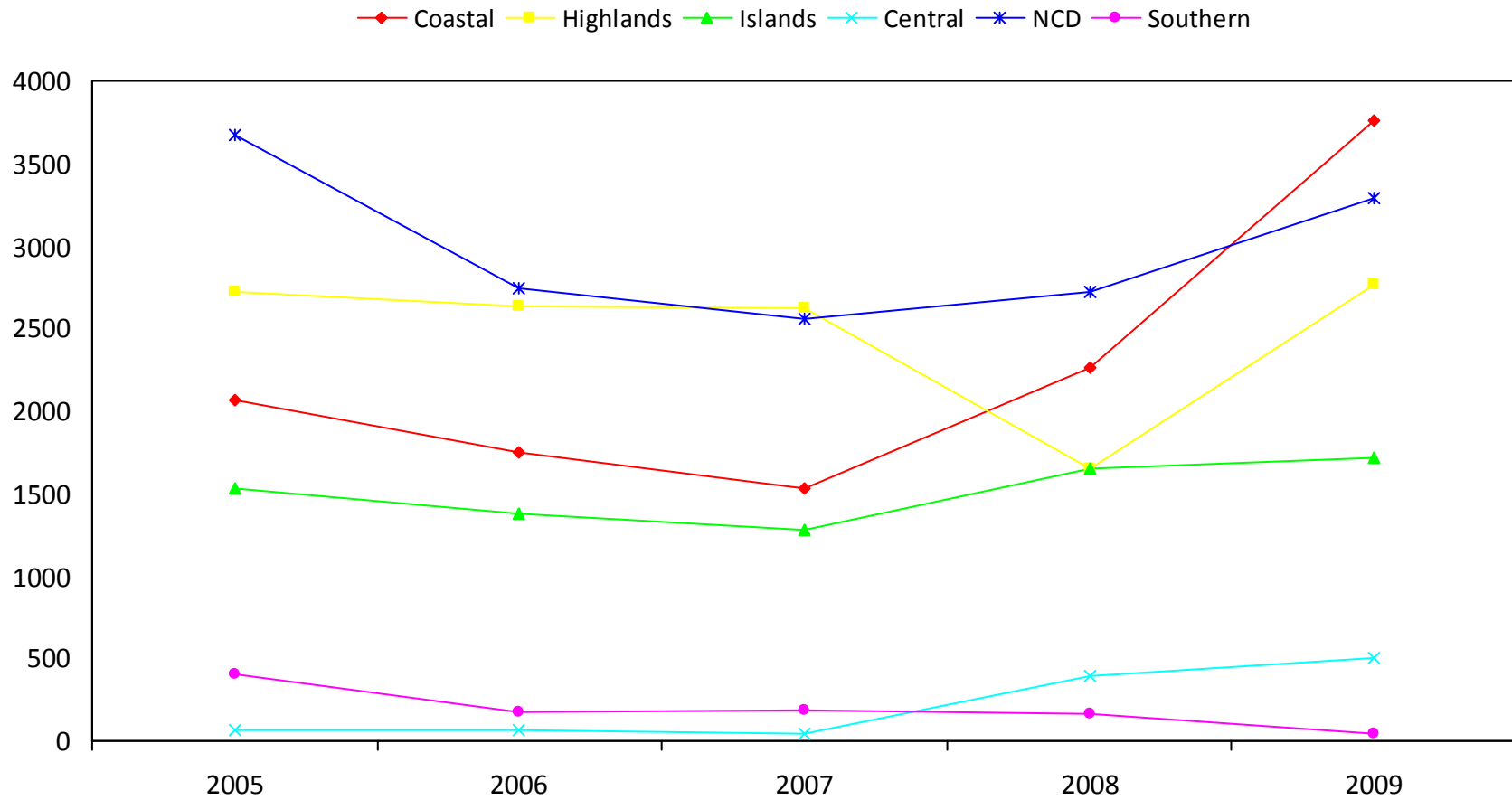


Annual Reported Criminal Incidents (National Level)

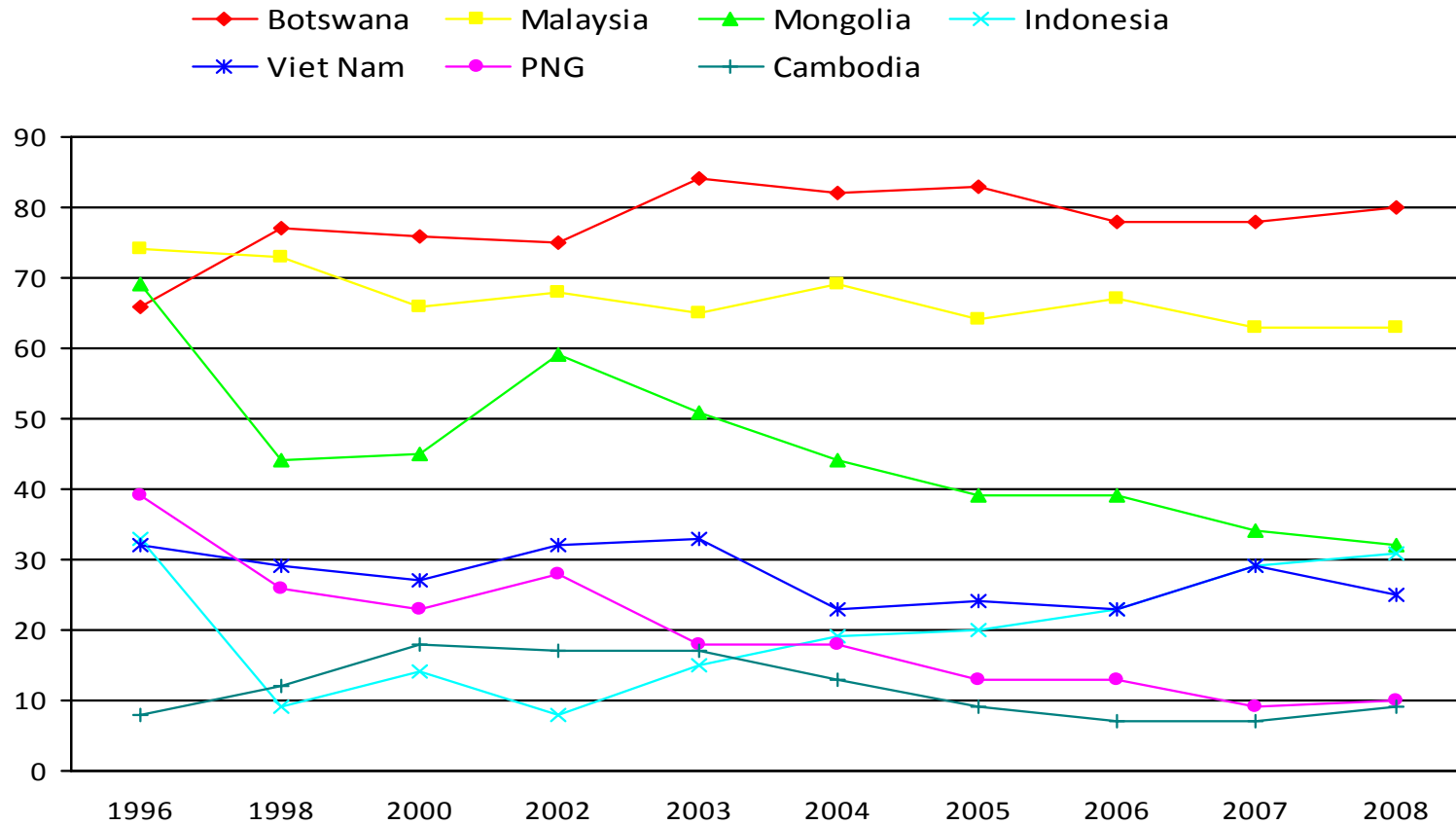


Source: UN Briefing Presentation in PNG

Regional Trends in Reported Criminal Incidents

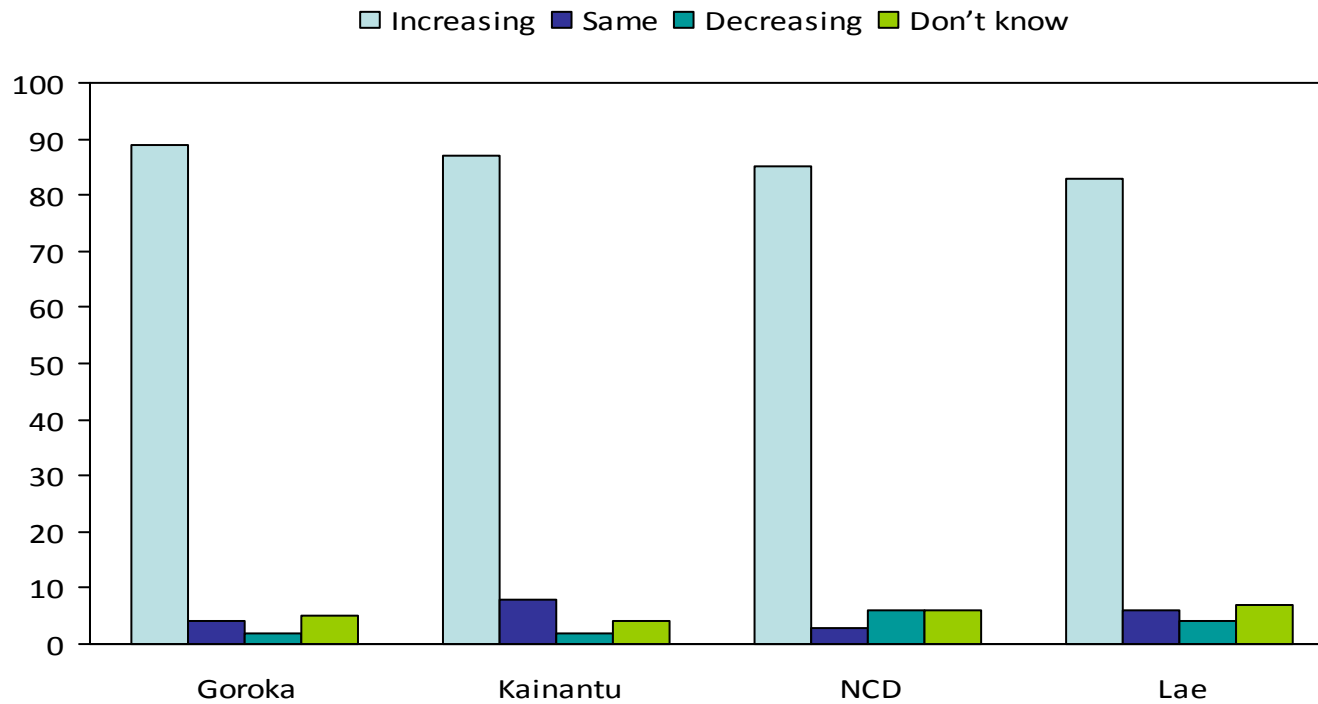


Control of Corruption in Selected Countries



Source: World Bank Governance Indicators

Community Perception of Corruption (2008)



Source: Civil Society Organization Survey 2008.



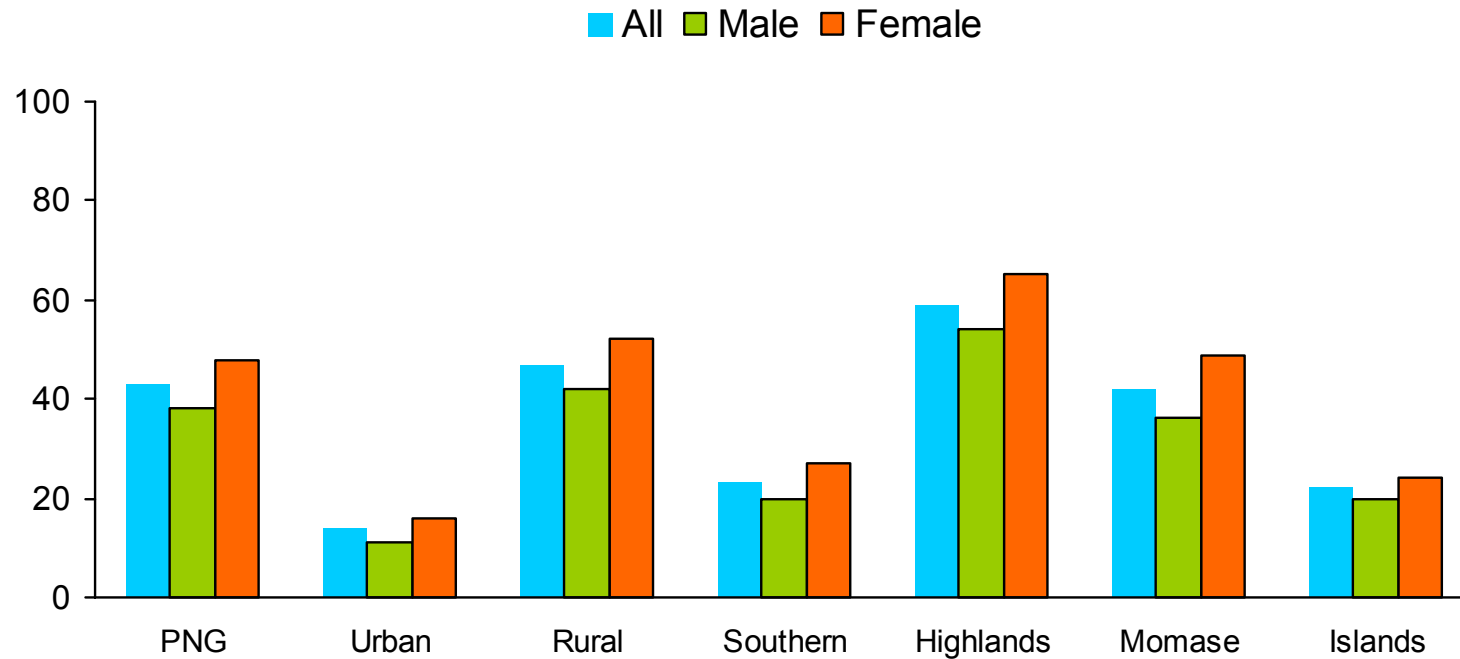
Economic Activity by Gender and Education Level among Those Aged 15-49 (2006, %)

	Men				Women			
	No education	Grades 1-5	Grade 6	Grade 7+	No education	Grades 1-5	Grade 6	Grade 7+
Non-farm work	16.3	17.2	23.6	34.5	12.6	11.1	16.5	27.6
Fish/farm cash	6.3	7.9	9.1	5.6	3.8	5.5	5.6	3.6
Fish/farm subsistence	49.4	35.1	38.9	19.1	48.8	40.8	41.5	19.9
Student	0.3	11.8	5.3	19.8	0.4	8.3	5.4	19.3
Housework	14.2	13.4	9.9	8.4	28.5	28.7	26.2	22.9
Unemployed	3.9	3.9	4.8	6.0	0.7	1.0	0.4	1.7
Old/sick	1.1	0.7	0.4	0.3	0.3	0.7	0.5	0.3
Others	6.8	7.4	6.6	4.5	3.5	2.6	2.7	2.6
Don't know	0.6	0.3	0.2	0.2	0.5	0.3	0.1	-

Source: NSO (2009).

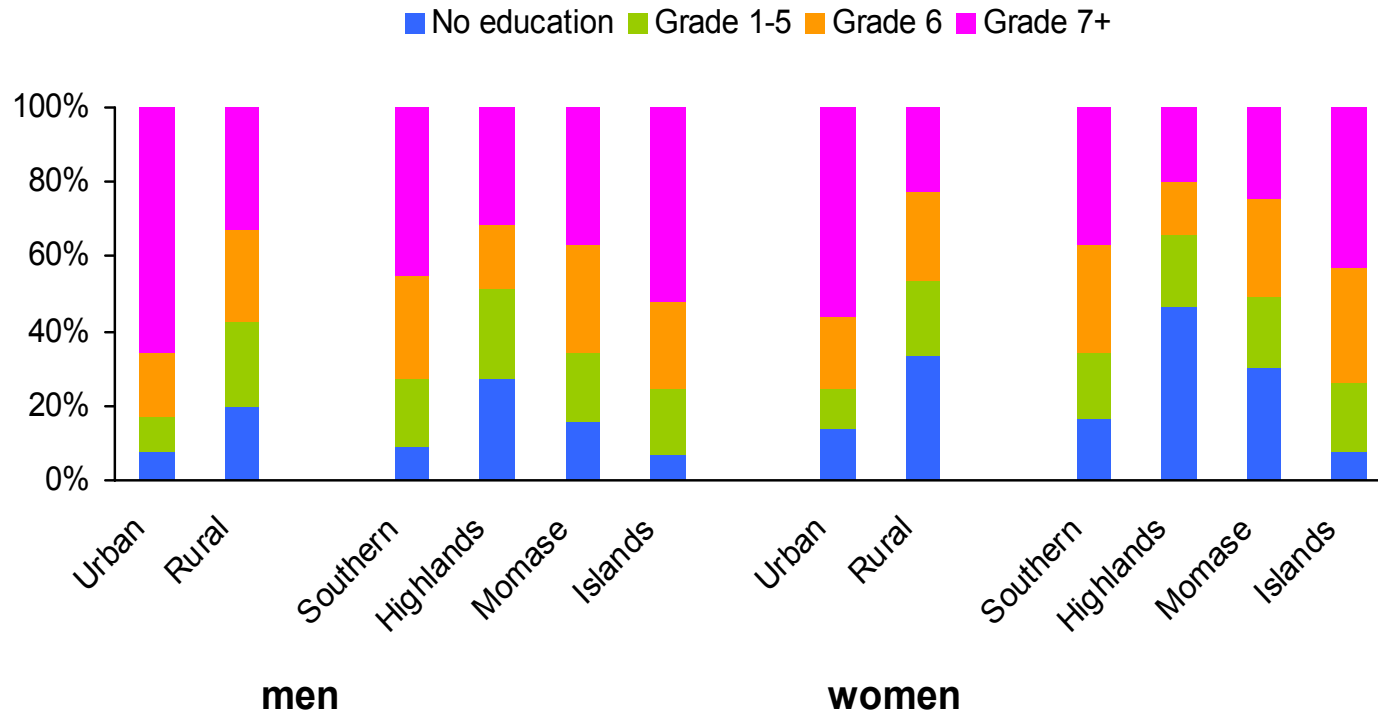


Illiteracy Rates among Those Aged 10+ (2000, %)



Source: PNG 2000 Population and Housing Census.

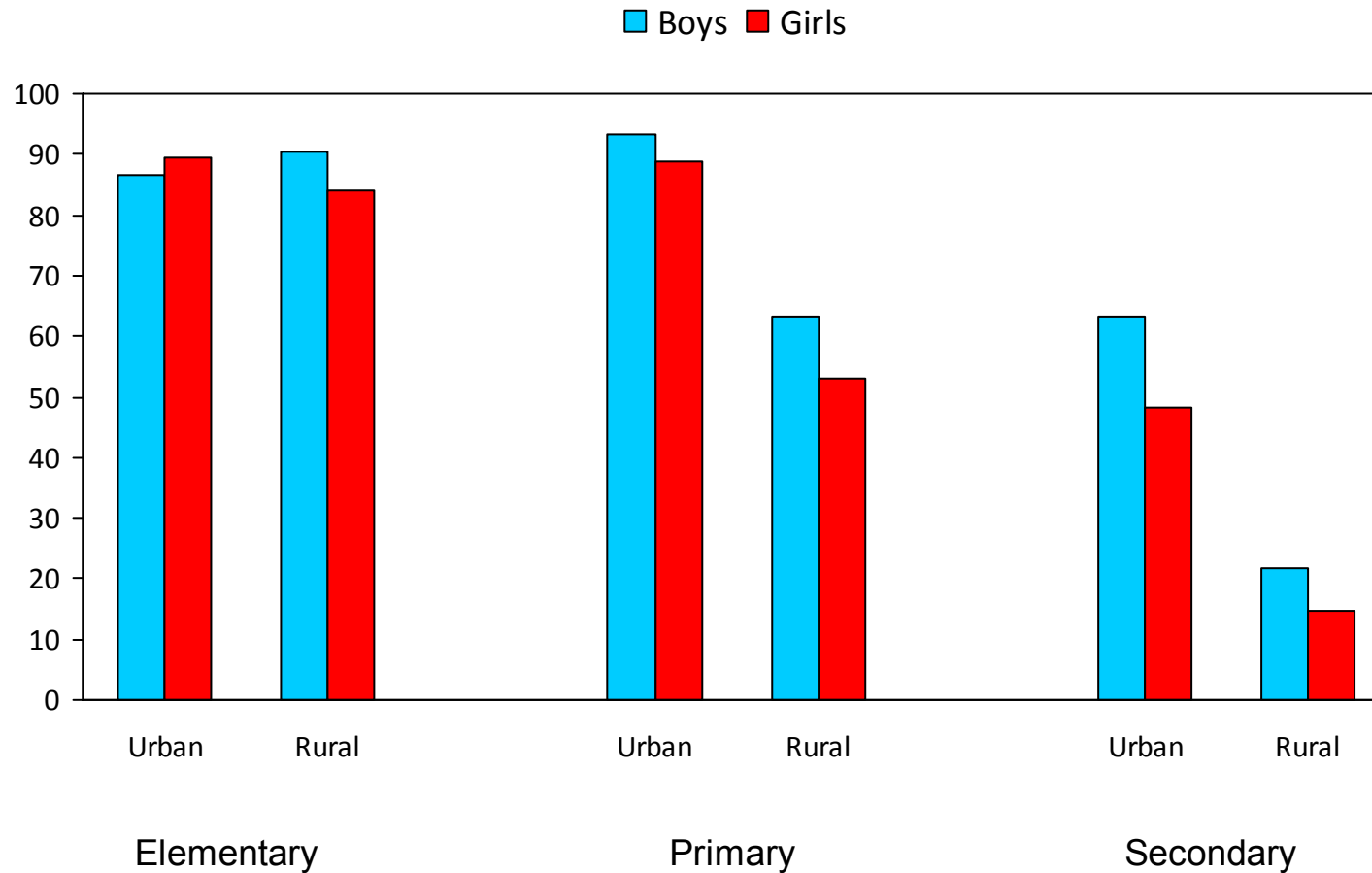
Highest Level of Education Attained Among Those Aged 15-49 (2006, %)



Source: NSO, 2009.



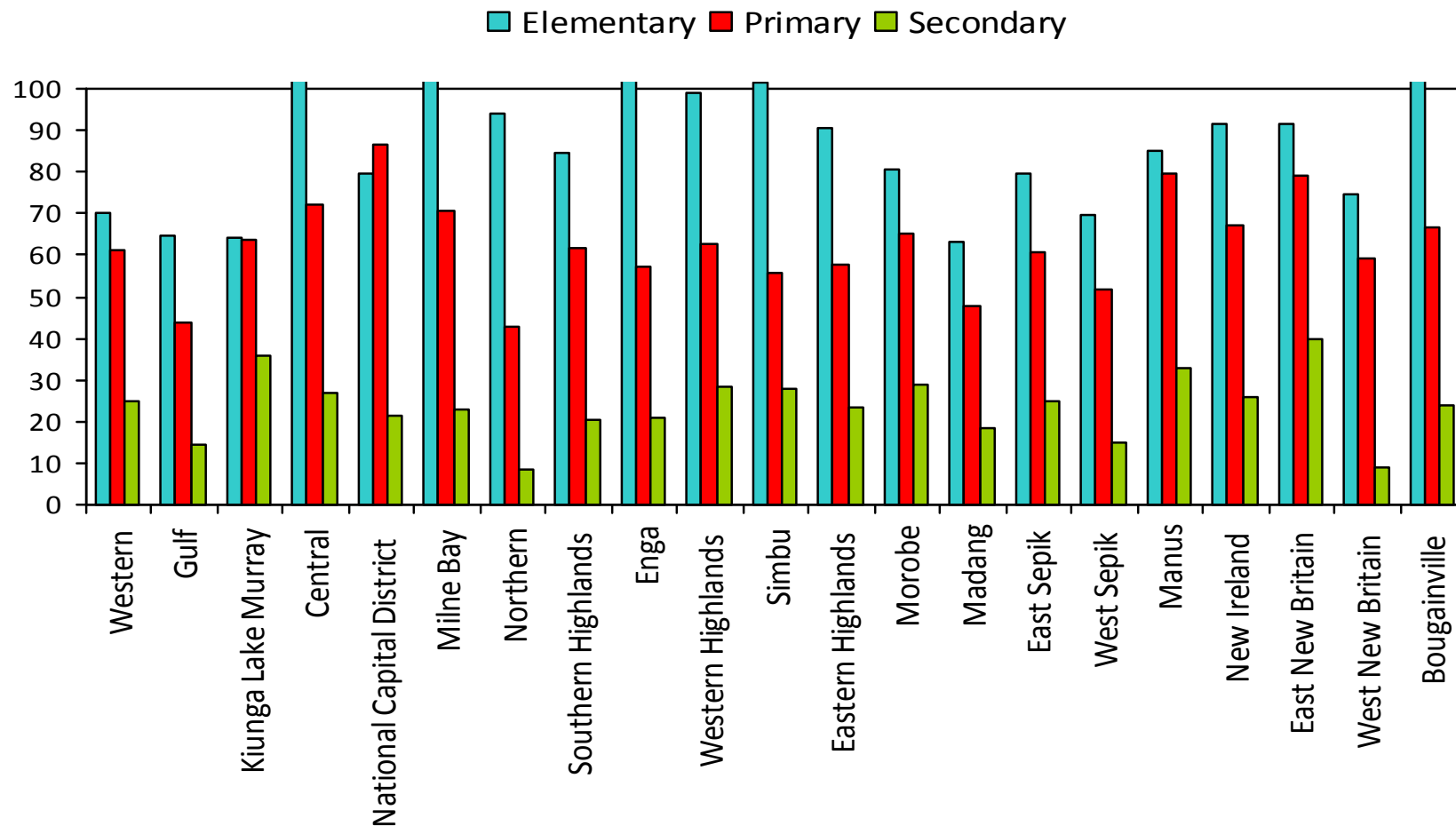
Gross Enrollment Rate by Gender and Place of Residence (2008, %)



Source: Department of Education, 2010.

Gross Enrollment Rate by Province

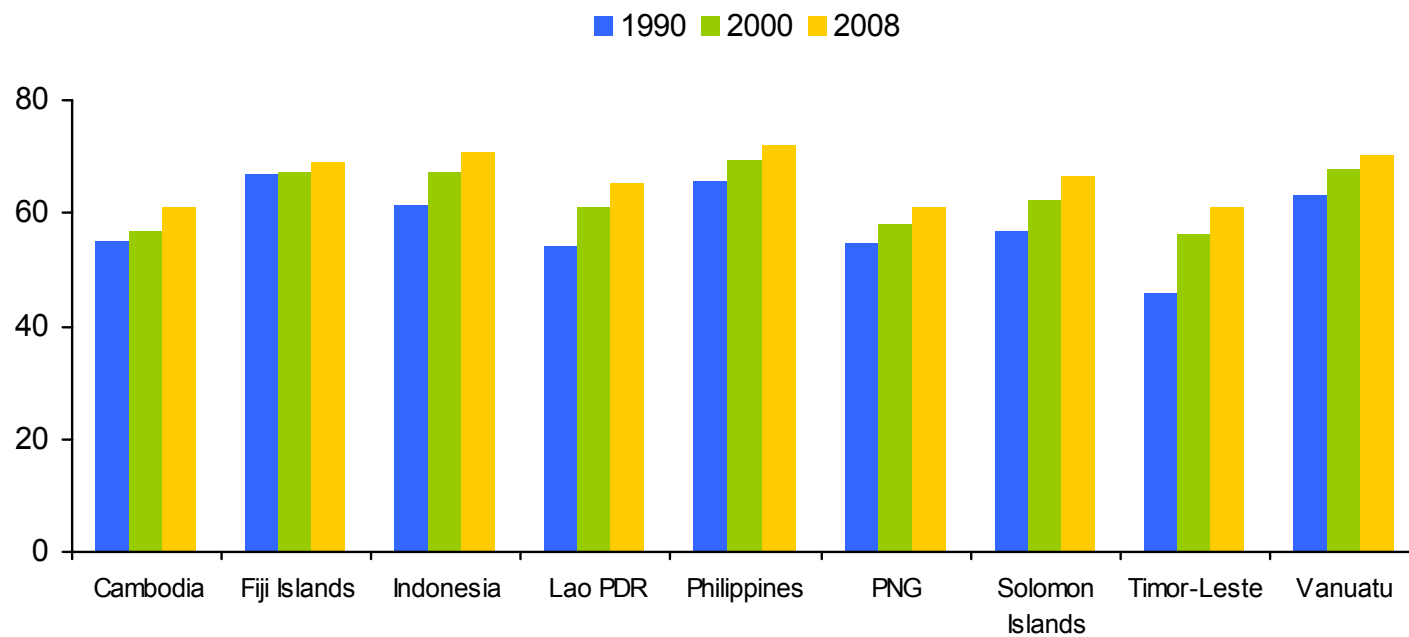
(2008, %)



Source: Department of Education, 2010.

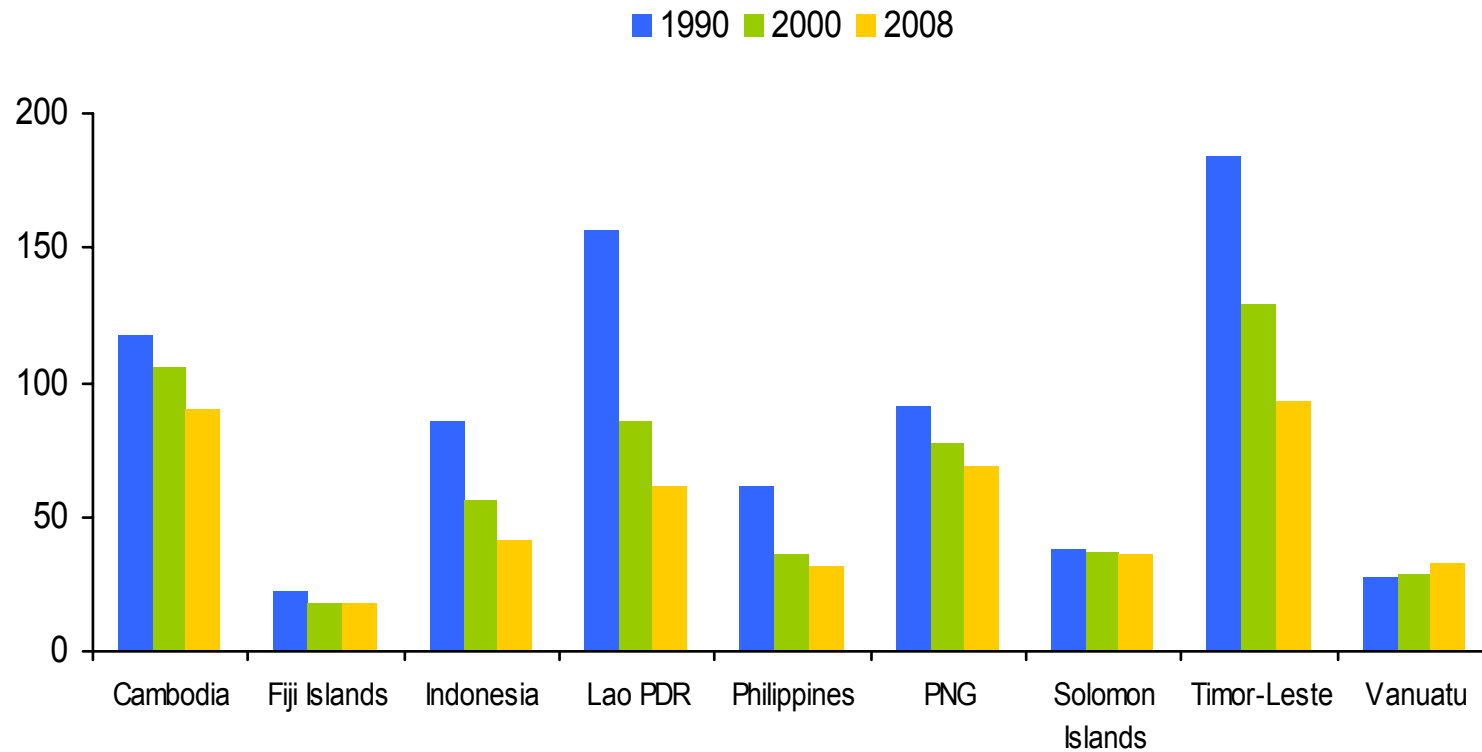


Life Expectancy at Birth (in years)



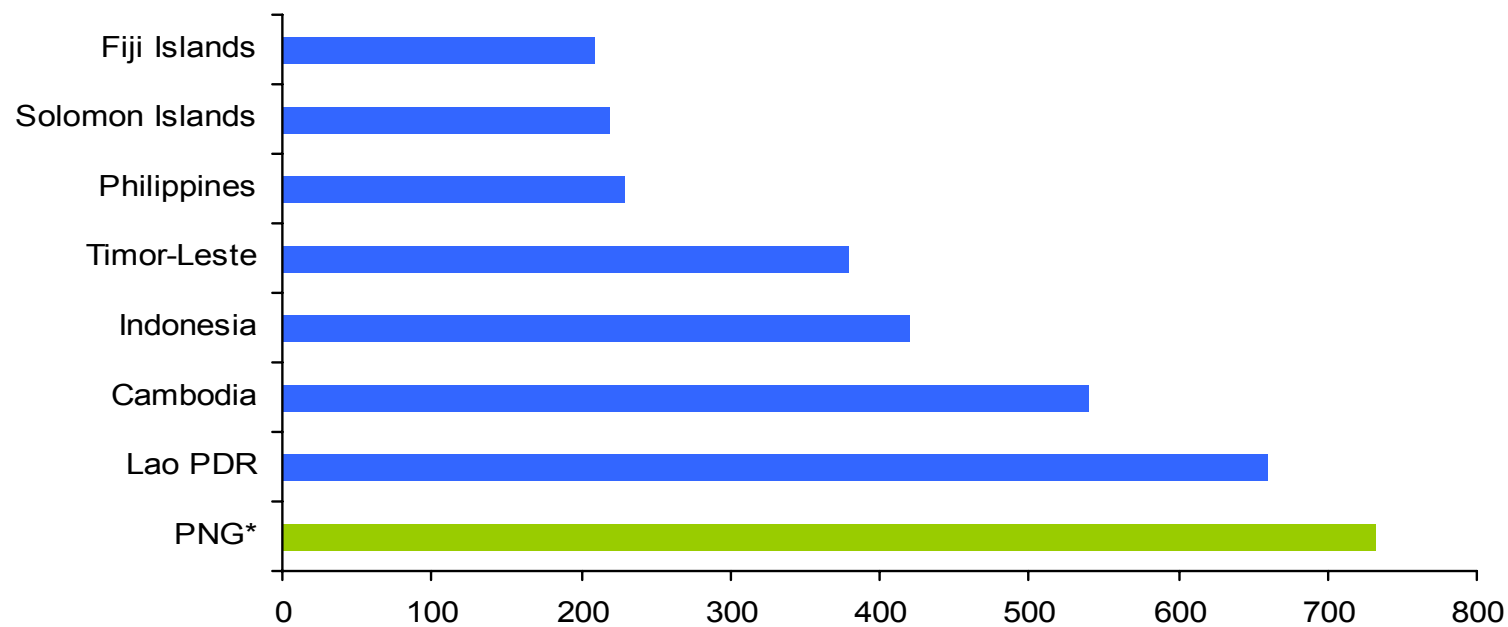
Source: ADB, 2010.

Under-Five Mortality Rate (per 1,000 live births)



Source: ADB, 2010.

Maternal Mortality Ratio (2005, per 100,000 live births)



Source: ADB, 2010 and the Government of PNG, 2010 for PNG.



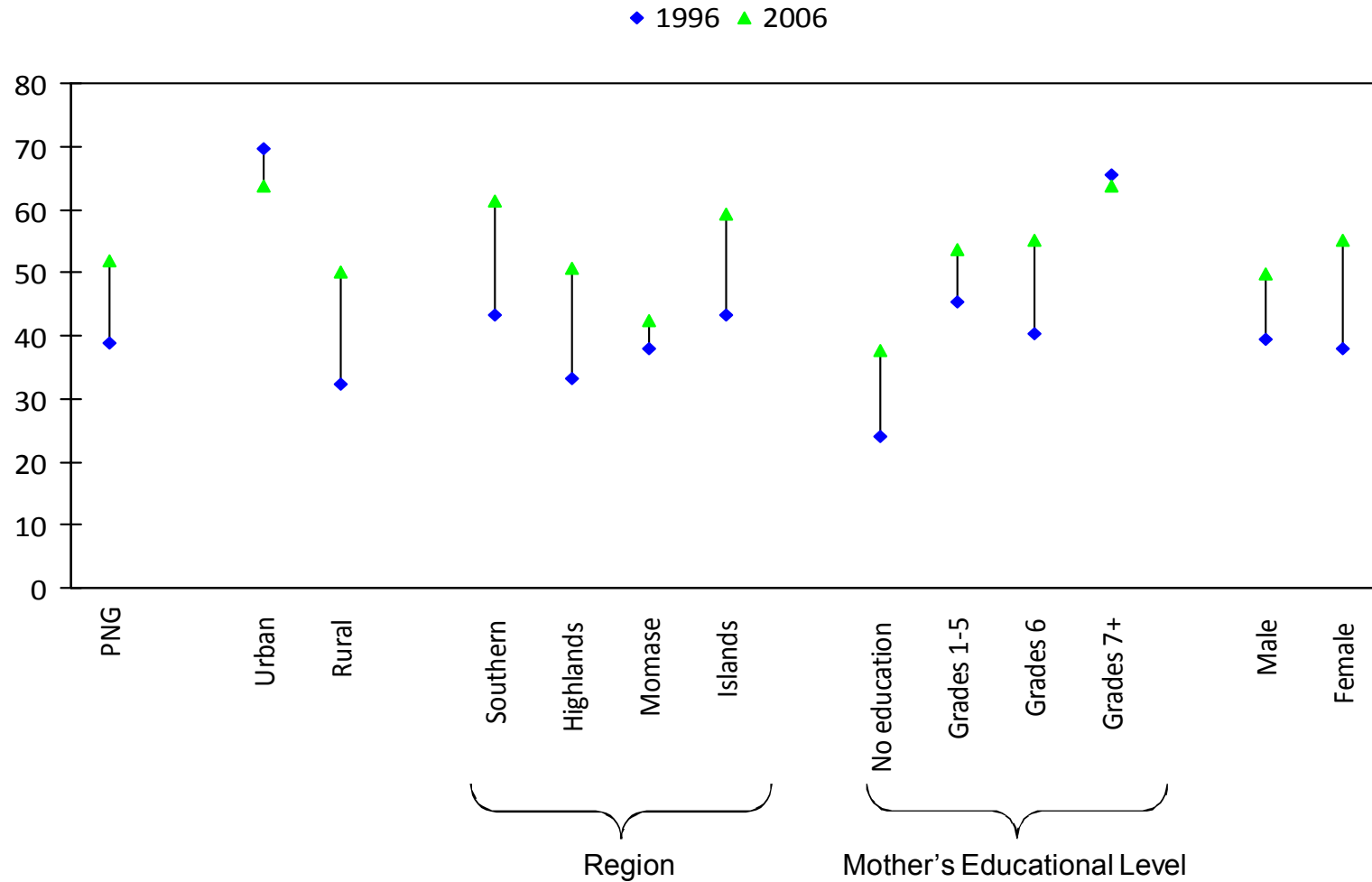
Infant and Child Mortality Rates (1996 and 2006, per 1,000 live births)

	Infant (0-1 year old) Mortality Rate			Child (1-5 years old) Mortality Rate		
	1996	2006	% change	1996	2006	% change
PNG	69	57	-18	25	19	-25
Place of residence						
Urban	34	31	-9	13	12	-6
Rural	87	62	-29	27	18	-34
Region						
Southern	41	45	10	26	13	-51
Highlands	114	72	-37	28	19	-33
Momase	76	55	-28	22	18	-19
Islands	49	50	2	18	15	-18
Mother's education level						
No education	106	74	-30	30	23	-22
Grade 1-5	68	66	-2	32	14	-56
Grade 6	51	49	-4	18	14	-23
Grade 7+	40	34	-15	10	11	16

Source: NSO, 2009.

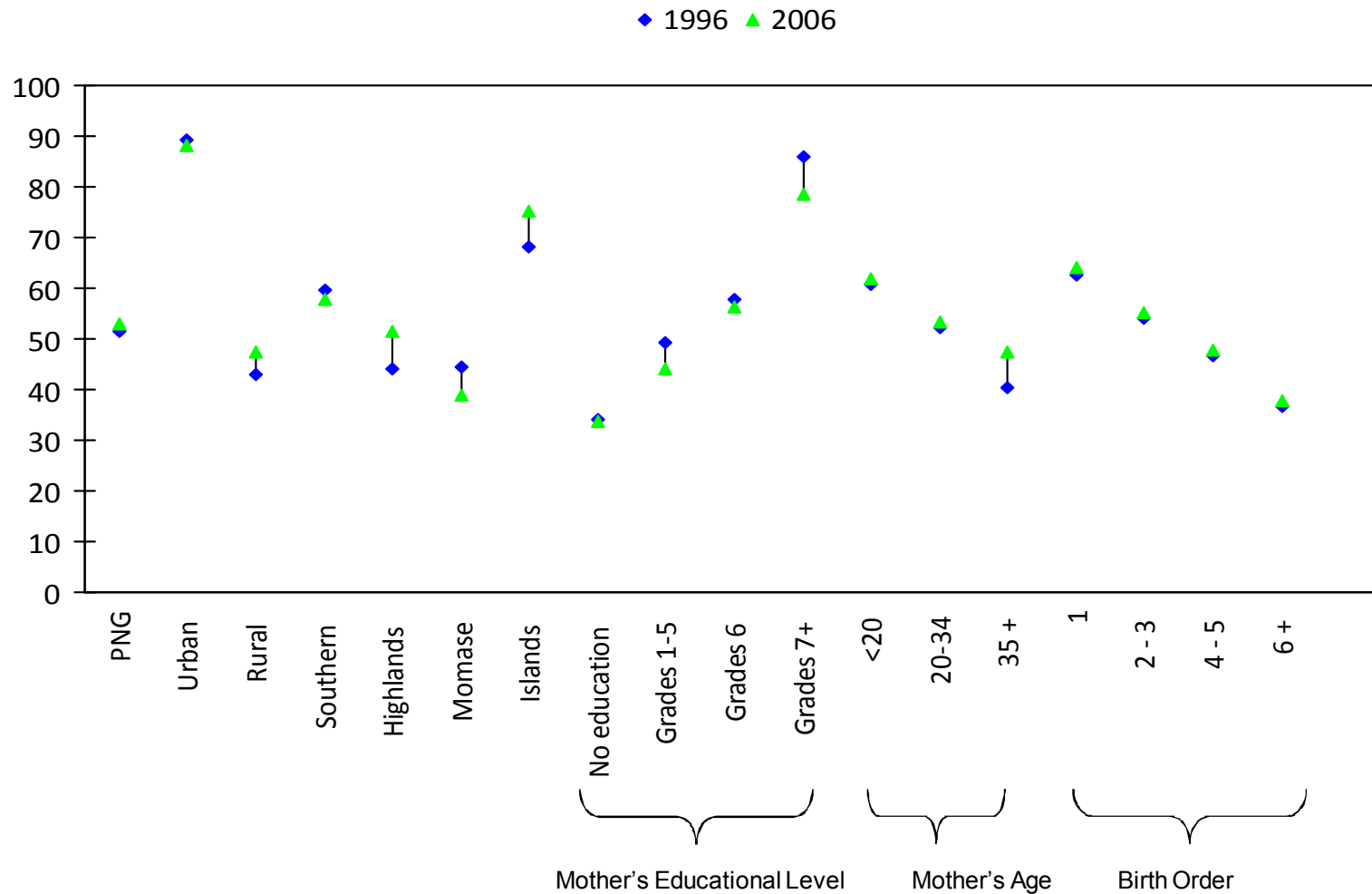


Percentage of Immunized Children (1996, 2006, in %)



Source: NSO, 2009.

Percentage of Deliveries Assisted by Skilled Health Staff (1996 and 2006, %)



Source: NSO, 2009.

