



Executive Summary

The Provincial Business Environment Scorecard (PBES) in Cambodia

A Measure of Economic Governance and Regulatory Policy

1. Executive Summary

Recent research on the development of the Cambodian private sector has highlighted four important and interconnected findings.¹

1) The private sector is the major source of employment in the economy (accounting for 92% of total jobs) and will continue to be the dominant source of job creation and poverty reduction for the foreseeable future.

2) Nevertheless, relative to its peers in other Southeast Asian economies, the Cambodian private sector has been inhibited in its ability to grow and create jobs because of a wide spectrum of institutional barriers and constraints to its development.

3) As a result of these institutional barriers, the vast majority of private enterprises have avoided the full formalization of their activities (as measured by whether an enterprise has registered with the Ministry of Commerce).

4) For all unregistered enterprises and most of the registered enterprises as well, the immediate interface with governing institutions is at the local (specifically the provincial/municipal) level.

And yet researchers and those in the donor community understand very little about these interactions, how they affect private sector performance and the choice to formalize, and finally how provincial governance differs across Cambodia. The missing key to our understanding of how to promote the growth and dynamism of the private sector in Cambodia and thereby assist job creation and poverty alleviation lies in a thorough understanding of the impact of local institutions on private sector performance. The Provincial Business Environment Scorecard (PBES) represents the first attempt to understand this in Cambodia.

The PBES is a thorough diagnosis of the comparative economic governance of 10 provinces according to 10 basic criteria (sub-indices). The ultimate goal of the project is to identify the provinces that have excelled at various aspects of provincial governance and communicate these successful governance practices to other provinces.

1.1. The Sub-Indices

More detail about how these sub-indices were measured is provided in Section 2 below, but briefly the sub-indices include:

1. **Entry Costs:** A measure of the time it takes firms to register and receive all the necessary licenses to start business, the number of licenses required, and the official costs of obtaining all licenses/permits.
2. **Property Rights:** A measure of the formal rights to business premises and the security of tenure once land is properly acquired and titled.
3. **Transparency:** A measure of whether firms have access to the proper planning and legal

¹ Development Consulting International, 2003. "Private Sector Assessment for the Kingdom of Cambodia," *TA Report for the Asian Development Bank and Ministry of Industry, Mines and Energy*. Asian Development Bank: Phnom Penh, December; World Bank Group, 2004a. "Cambodia: Economy Profile," *Doing Business in 2005: Removing Obstacles to Growth*. World Bank: Washington, D.C.; World Bank Group, 2004b. *Cambodia Seizing the Global Opportunity: Investment Climate Assessment and Reform Strategy for Cambodia*. World Bank: Phnom Penh; Dapice, David. 2005. "Reducing Poverty by Creating a Normal Country," Memorandum to Government of Cambodia; Chandarrot, Kang, 2006. *The Enabling Environment for Micro, Small, and Medium Enterprises in Cambodia*. Phnom Penh: The Asia Foundation and Cambodian Development Resource Institute. Chandarrot, Kang, Salze-Lozac'h, Véronique, and Liv Dannet, 2006. *Streamlining Local Licensing Procedures in Cambodia*. Phnom Penh: The Asia Foundation and Cambodian Institute of Development Study.

documents necessary to run their business, whether those documents are equitably available, and whether new policies and laws are communicated to firms and predictably implemented.

4. **Time Costs of Regulatory Compliance:** A measure of how much time firms spend on bureaucratic compliance and waiting periods, as well as how often firms must undergo inspections by local regulatory agencies.
5. **Informal Charges:** A measure of how often firms pay both micro-informal charges such as bribes and macro-informal charges such as kickbacks on public procurement, how much of an obstacle those extra fees pose for their business operations, and whether payments of those extra fees are predictable and result in the expected results or “services.”
6. **Participation:** Measuring whether firms are consulted in the creation of provincial policy and whether their interests are represented in policy discussions by business associations or other interest groups.
7. **Crime Prevention:** A measure of how much firms pay in explicit costs as a result of crime due to property that is lost or stolen, as well as the implicit costs of preventing crime by paying security and protection money.
8. **Tax:** A gauge of both the administrative and fiscal burden imposed by tax regulation in the province.
9. **Proactivity of Provincial Leadership:** A measure of the creativity and willingness of provincial authorities to assist and interpret in favor of local private firms – given an often unclear national regulatory framework – in implementing central policy and designing their own initiatives for private sector development.

10. **Dispute Resolution:** A measure of the satisfaction firms have in the outcomes of formal and informal modes of dispute resolution in the province.

1.2. Methodological Innovation

Two general types of data were used to construct the sub-indices. The first is perceptions data, drawn from a face-to-face survey of 500 private firms in 10 provinces. This perceptions (or “soft”) data was combined with objective (or “hard”) data gathered from published sources, such as statistical yearbooks, the annual provincial budget, first-person collection and interviews with third-parties like state-owned banks and real estate firms.²

It is important to highlight that while the PBES analysis studies similar issues as previous assessments of the private sector in Cambodia, its methodology differs in two critical ways. First, the PBES research team did not limit its analysis to the formal sector; the explicit goal of the research was to assess the private sector generally and this meant focusing on economic governance toward unregistered firms as well. 58 % of the firms in our sample are neither registered with the Ministry of Commerce nor even possess the less formal distinction of one-year registration through Municipal/Provincial Department of Commerce. Nevertheless, calling them informal is a misnomer, as 73% have documented their business activities by paying a one-year Patent Tax with the local tax authority. Local officials are aware of their business activities and benefit from them.

The decision to sample from the entire population of enterprises arose from two problems faced in the early stages of the research – one methodological and one theoretical. First, in terms of methodology, we found it impossible to obtain similar lists of registered enterprises (or enterprises with one-year operating licenses) between the different provinces; data quality and coverage differed dramatically (if lists existed at all), raising severe concerns about selection bias in the comparison of provincial environments. We thus felt it was necessary to have a well-documented census of all enterprises in the research area from which we could draw a random sample. Second, theoretically, the ultimate goal of the research was to understand the environment for private sector activity at the provincial level – this simply could not be done if 75% of the active private sector was omitted because it was considered informal by government standards, as

² See Appendix 1 for a list of the full set of indicators.

would have been the case in Banteay Meanchey. Furthermore, as important as it is to understand the constraints faced by the registered sector, it is equally important to understand why such a large portion of private firms (accounting for 80% of Gross Domestic Product (GDP) and 95% of employment)³ choose not to take the next steps in the formalization of their activities. Certainly, this will be best done in a panel setting with yearly surveys of the same enterprises, but it cannot be done at all if they are eliminated from the study at the outset.

The second major difference between the PBES and earlier work on private sector activity in Cambodia is that rather than extrapolating a few provincial-level results from a national-level sample, the research team drew 10 different provincial-level samples, so that it had as accurate a picture as possible of the private sector. To do this, the team performed a detailed census of private sector operation in the capital and the three other major population centers of all the provinces and municipalities. First, the 10 most economically important provinces were selected, including, arguably, all of Cambodia's main economic centers. Collectively, these provinces represent 75% of GDP and 64% of the Cambodian population.⁴ While the goal is to eventually extend the PBES analysis to all provinces; in this inaugural year, the decision was made to concentrate on provinces with relatively robust economies. Next, researchers traveled to each of the 10 provinces to undertake a complete census of business activity. Every business operation in a fixed location was considered an active enterprise for our analysis. In total, 41,775 business operations were identified. After excluding all enterprises with less than one employee other than the owner, a stratified random sample was drawn from the lists generated by the census. Strata were defined by the number of employees (five different categories) and the sector in which the firms operate (services, manufacturing and construction, and commerce) for a total of 15 different strata. Random selection within these strata ensured that the sample would be a reliable representation of the provincial populations. The result of these methodological choices is a far more accurate representation of provincial-level business activity than has been put together thus far in Cambodia.

³ Development Consulting International, 2003, p. 10.

⁴ Author's own calculation based on Cambodian Statistical Yearbook 2004.

1.3. The Provincial Business Environment Scorecard

The final results of the PBES can be seen in Figure 1 below. The Eastern border provinces of Kampong Cham and Svay Rieng top the list, followed by Kampong Chhnang and Kampot. Kandal, a province encircling the capital city of Phnom Penh, along with Banteay Meanchey and Battambang in the Northwest along the Thai border, rank sixth and seventh respectively. The PBES found that governance is weakest in Phnom Penh, Siem Reap, and Sihanoukville. Individual scores can also be seen in Table 1.

Siem Reap's placement near the bottom of the list may come as a surprise to anyone familiar with the large investment and growth in the hotel and tourist industry in the province. Those who have worked there, however, may be less surprised by Siem Reap's especially low scores on Entry Costs, Transparency, Crime Prevention, Proactivity, and Taxes. Like natural resource rich economies who suffer from the well-known "*resource curse*," where heavy rent-seeking for access to oil, lumber, and minerals leads to corruption and officials who have a little incentive to improve governance,⁵ Siem Reap may suffer from an analogous issue related to its tourist potential. Siem Reap's government officials do not have to try as hard as their peers from other provinces to improve the economic situation. Because the Angkor temple complex is located within their borders, they are virtually guaranteed a greater flow of tourist dollars and service activity than their neighbors. Indeed, Siem Reap has the highest GDP per capita outside of Phnom Penh and the PBES survey revealed that its firms enjoyed the highest growth in labor and investment over the past year, while ranking second only to Kampong Cham in willingness of entrepreneurs to expand their business. Nevertheless, it is interesting to note that with just small efforts to improve its governance, Siem Reap could grow even faster.

⁵ Ross, Michael, 2001a. *Timber Booms and Institutional Breakdown in Southeast Asia*. New York; Cambridge University Press. Ross, Michael, 2001b. "Does oil hinder democracy?" *World Politics* 53: 325-361. Sachs, Jeffrey and Andrew Warner, 1995. "Natural resource abundance and economic growth." *National Bureau of Economic Research Working Paper No. 5398*.

Figure 1: The Provincial Business Environment Scorecard (PBES)

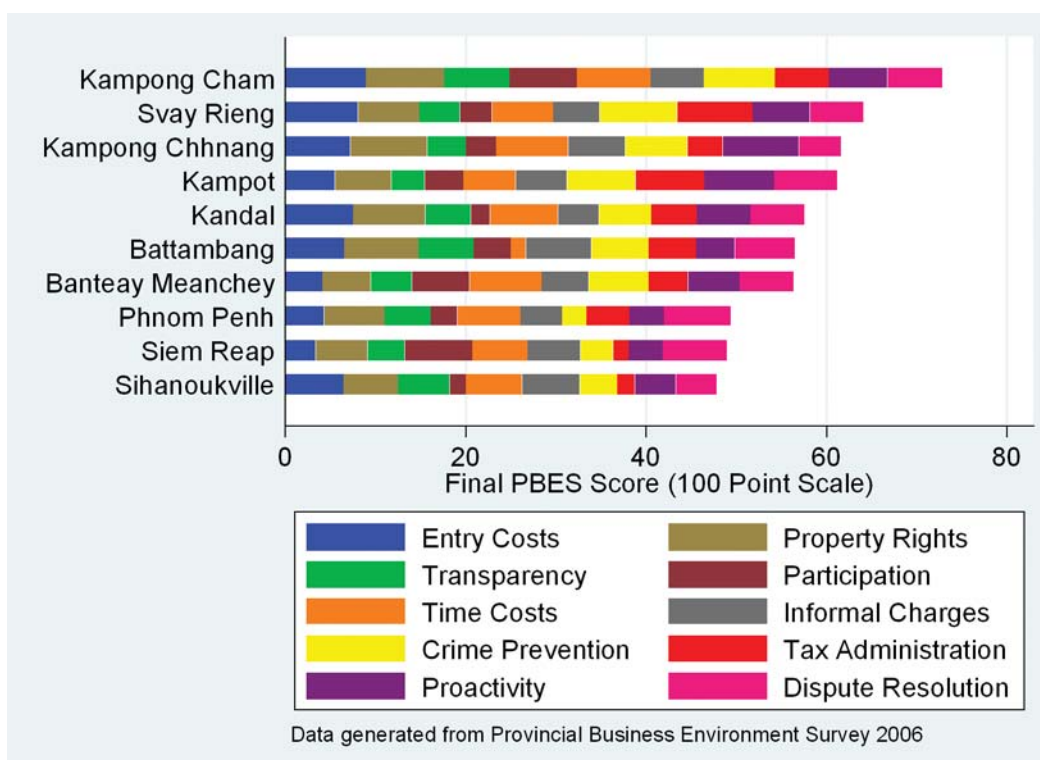


Table 1: Final Provincial Business Environment Scorecard

<i>Province</i>	<i>Entry Costs</i>	<i>Property Rights</i>	<i>Transparency</i>	<i>Participation</i>	<i>Time Costs</i>	
Kampong Cham	8.95	8.62	7.29	7.48	8.18	
Svay Rieng	8.08	6.74	4.56	3.56	6.72	
Kampong Chhnang	7.20	8.52	4.32	3.28	8.10	
Kampot	5.49	6.31	3.68	4.24	5.86	
Kandal	7.49	8.04	5.08	2.08	7.57	
Battambang	6.50	8.23	6.16	4.12	1.67	
Banteay Meanchey	4.13	5.40	4.50	6.40	8.00	
Phnom Penh	4.33	6.65	5.13	2.95	7.02	
Siem Reap	3.40	5.73	4.16	7.46	6.10	
Sihanoukville	6.41	6.08	5.72	1.84	6.25	
<i>Province</i>	<i>Informal Charges</i>	<i>Crime Prevention</i>	<i>Tax</i>	<i>Proactivity</i>	<i>Dispute Resolution</i>	<i>PBES</i>
Kampong Cham	5.86	7.89	6.57	5.96	6.11	72.90
Svay Rieng	5.22	8.59	6.38	8.33	5.96	64.14
Kampong Chhnang	6.30	6.87	8.43	3.92	4.73	61.67
Kampot	5.66	7.64	7.77	7.58	6.94	61.18
Kandal	4.54	5.75	6.01	5.02	5.98	57.55
Battambang	7.30	6.29	4.34	5.23	6.62	56.46
Banteay Meanchey	5.23	6.62	5.71	4.39	5.97	56.35
Phnom Penh	4.58	2.70	3.88	4.77	7.36	49.36
Siem Reap	5.87	3.65	3.74	1.70	7.11	48.95
Sihanoukville	6.40	4.09	4.60	1.96	4.46	47.82

It is important to note that the PBES is solely a measure of economic governance and regulatory policy. It should not be confused with a measure of Total Investment Environment that includes both governance and measures of initial endowments (i.e. structural conditions). If we were measuring the Total Investment Environment, it is obvious that Phnom Penh, Sihanoukville, and Siem Reap would rank higher.

Yet such a total investment environment is uninteresting analytically because provinces with relatively poor initial endowments such as Banteay Meanchey can do little to improve endowments in the short term. Far more useful is the impact in business development than can come from

improving the economic governance (measured by the PBES) in the short term.

Indeed, all provinces have a great deal of work to do on improving economic governance in particular arenas. The star chart in Figure 3 demonstrates the weaknesses and strengths of every province relative to the perfect score. No province excels in all areas. Even top-ranked Kampong Cham scores poorly on the Informal Charges, Proactivity, and Dispute Resolution Sub-Indices. Provinces such as Battambang and Kampong Chhnang show highly skewed governance scores with some excellent marks and other areas in need of tremendous improvement. The lowest scoring provinces have room for improvement on every sub-index.

Figure 2: Total Investment Environment

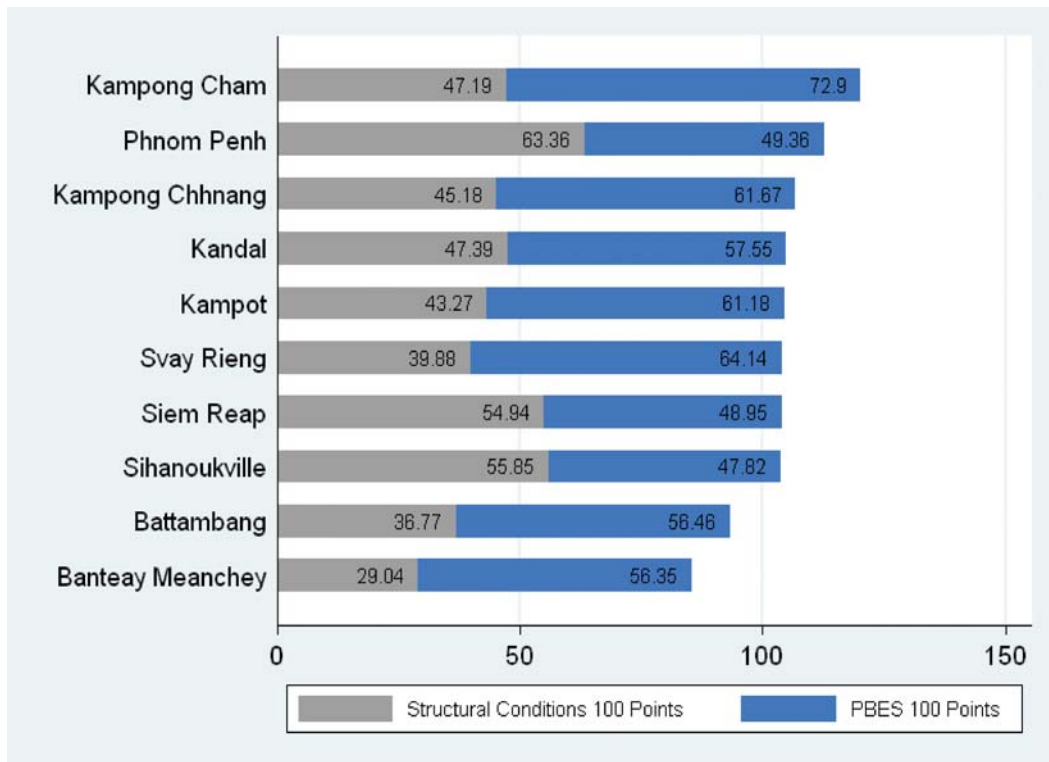
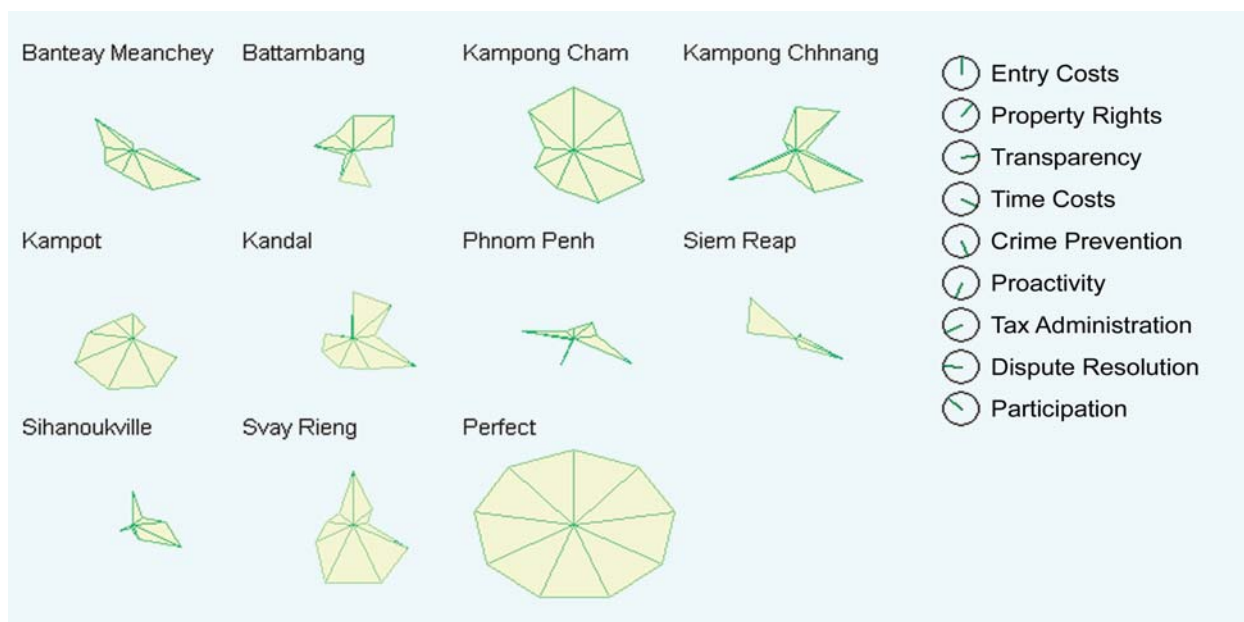


Figure 3: Star Chart of Provincial Scores on Each Sub-Index



1.4. The Impact of Provincial Business Environments

While some of these changes may be time consuming and perhaps politically difficult to accomplish, improved governance will almost certainly have an immediate effect on the business development in the region. Statistical analysis of the PBES indicators bears this out. Controlling for firm-level variables such as age, sector, size, and costs, and the provincial-level factors of infrastructure and tourist attraction potential, it can be shown that a one-point improvement on the PBES index from the mean score of 56.30 would lead to a 1.20% increase in the probability of firm expansion. Thus, a one standard deviation improvement (7.27 points) from the mean would generate a predicted 8.20% increase in the probability that existing firms will expand their businesses over the next two years.⁶ To make this more tangible, if Battambang (given its existing infrastructure, tourist potential, and human capital) were to improve from its present PBES score (56.46) to the level of Kampong Cham (72.90), it could expect nearly a 17% improvement in the willingness of existing firms to expand their businesses in the future.

Table 2 takes this one step further by looking at the relationship between governance and willingness to expand in the manufacturing sector – thought to be a future source of growth in Cambodia due to its labor cost advantages.⁷ On average, there is statistically no difference between the willingness of firms engaged in manufacturing and construction (63.60%) to expand their business than firms in other industries (62.50%). This relationship changes drastically, however, if we look at the options for manufacturing firms in well-governed provinces (defined as provinces with a total PBES score of 59 points or above). Here, we find that in provinces with low PBES scores, manufacturing firms are more reluctant to expand their businesses than firms in other industries (53% to 58%). In provinces with high PBES scores, however, both types of firms envision significant expansion over the next two years with manufacturing far more likely than their peers in commerce or services (73% to 67%). The results are quite striking: the predicted impact of manufacturing expansion will be most pronounced in well-governed regions.

⁶ Derived from a firm-level regression with standard errors clustered at the provincial level using Survey Question B_8, “Which statement best characterizes your firm’s investment plans over the next two years?” Please see Appendix 2A for more details on regression and robustness analysis.

⁷ World Bank 2004b; Mohan, T. 2005. “SMEs can be the Drivers of Competitiveness in Cambodia.” *Cambodian Review*, August, p. 10.

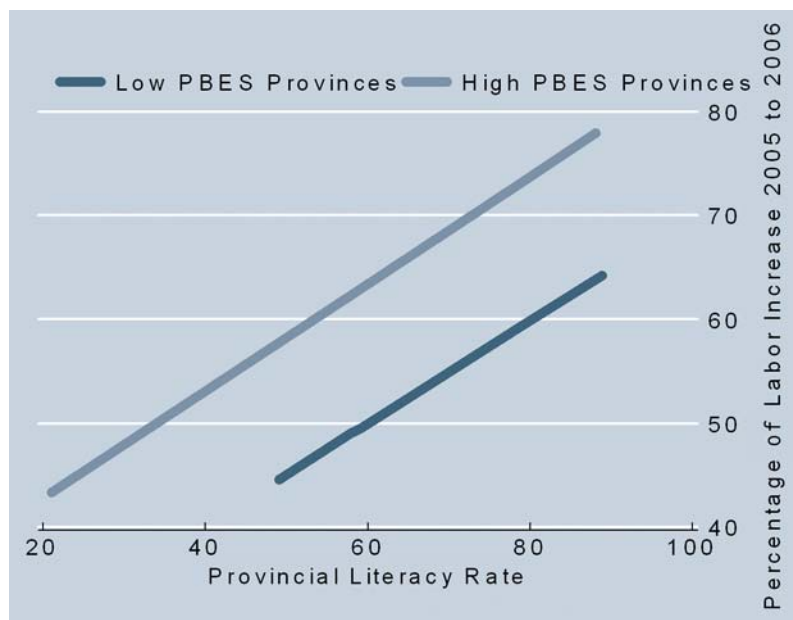
**Table 2: Predicted Probability of Expansion in Next Two Years
(By Provincial Business Environment Score and Sector)**

	<i>Low PBES</i>	<i>High PBES</i>
Non-Manufacturing Firms	0.58	0.67
Manufacturing Firms	0.53	0.73

Of course, a simple willingness to expand can be misleading due to the sometimes irrational optimism of many entrepreneurs. A more realistic measure of the impact of governance on firm expansion is the actual percentage of employees each firm has added to the labor force over the past year. Once again, we find that governance is quite influential. A one-point increase in PBES from the mean score would likely yield a 2.39% increase in average firm employment.⁸ Thus, if Banteay Meanchey were to improve its existing PBES score of 56.35 to the level of Kampong Chhnang (61.67) without changing its infrastructure or human capital, it could expect firms within its border to increase their employment by 12.70% on average. Indeed, such an improvement would be a much easier short-term goal to accomplish than Banteay Meanchey raising, for example, its provincial literacy rate from 62% to the Kampong Chhnang level of 88%, which would yield a predicted 9.36% increase in labor growth per firm.

Figure 4 demonstrates the results of the interaction between governance and literacy on net firm hires, controlling for other firm and provincial-level factors. Additional hiring in firms is strongly related to improvements in literacy in both high and low scoring provinces. Indeed, the slopes of the two lines are roughly the same indicating that a 10-point improvement in literacy would have about the same 5% increase in labor growth in both types of provinces. But if we take literacy as given, we can see that at each literacy level, firms in well-governed provinces hired more workers on average than those in lower performing regions, controlling for other factors. At the 60% literacy rate, for example, a province with a low PBES score would have experienced a 50% increase in employment on average, whereas a well-governed province would have experienced a 62% increase in employment.

Figure 4: PBES and Literacy Rates on Firm Labor Growth



⁸ Derived from a firm-level regression with standard errors clustered at the provincial level using three survey questions: [Q7_7a (Number of Permanent Employees Hired 2006) - Q7_7b (Number of Permanent Employees Fired 2006)] / Q6a_b (Number of Permanent Employees in 2005)]. Please see Appendix 2B for more details on regression and robustness analysis.

Table 3: Predicted Impact of Sub-Indices on Labor Growth 2005-2006⁹

<i>Sub-Index</i>	<i>Impact of a 1 Point Increase in the Sub-Index on Labor Growth</i>
Entry Costs	10.25%*
Property Rights	17.44%**
Transparency	10.94%
Dimension 1: Access to Regulatory Information	8.80%***
Participation	8.00%*
Informal Charges	20.90%**
Crime Prevention	12.70%**
*** p<0.01, ** p<0.05, * p<0.1	

For provincial officials wishing to prioritize their reform interventions, Table 3 demonstrates that improvements in Entry Costs, Property Rights, Transparency (specifically access to regulatory information), Participation, Informal Charges, and Crime Prevention play the largest role in explaining labor growth. Provincial officials are advised to concentrate on policies that will improve these indicators first before concentrating on the others. Increasing performance on informal charges alone will yield a potential 21% increase in firm labor for every one-point improvement. Simply improving the availability of information on registration and licensing would generate a potential 8% average growth in firm level employment.

1.5. Conclusions

This summary has tried to demonstrate three critical points:

1. Provincial governance, as measured by the PBES, differs drastically across the different regions of Cambodia;

2. All provinces, no matter how high their scores, have room for improvement; and
3. Any governance improvements could generate a large impact on provincial business expansion and employment, but a few key areas will yield enormous returns.

Section 2 documents how each of the PBES sub-indices was created and how the final scores were assembled into the PBES. Provincial leaders will be best served by paying careful attention to the indicators that comprise each index, as they offer the most vivid portrayal of where they can target their policy initiatives for improvement. The section concludes with an analysis of the impact of individual sub-indices on labor growth.

Section 3 provides a detailed methodological discussion of the various phases of the PBES research program.

Section 4 discusses potential areas for additional research and technical assistance projects.

⁹ Appendix 3 shows the full regressions that generated these results.