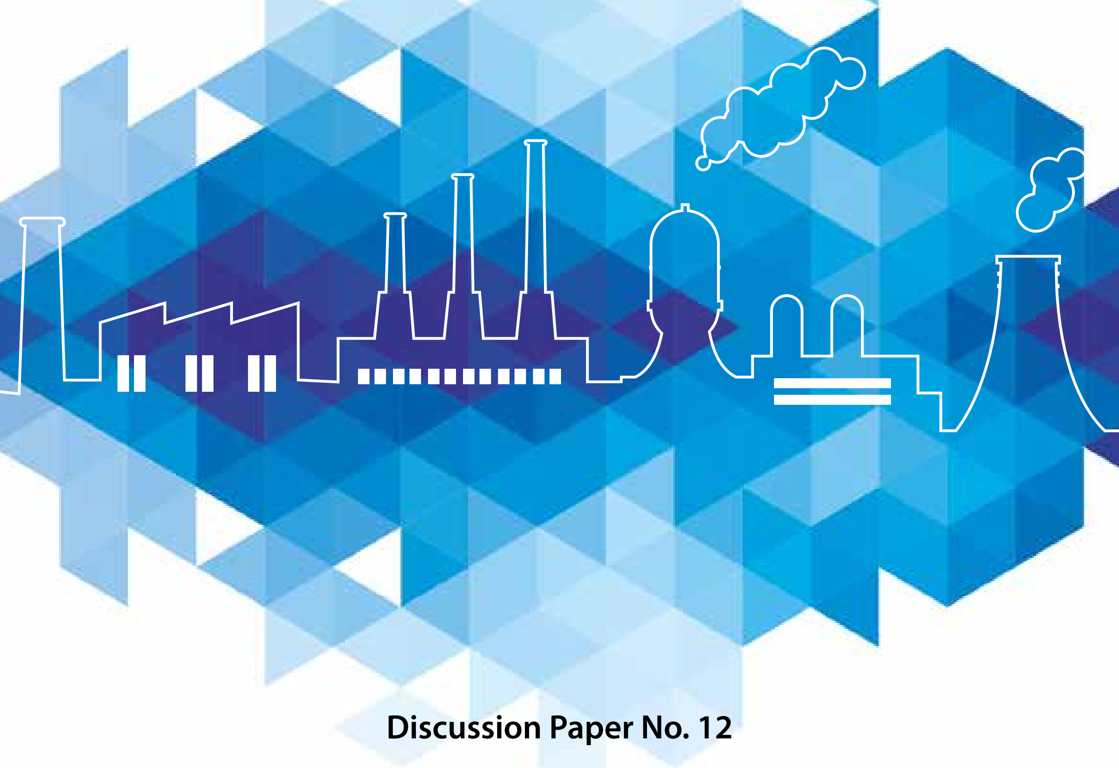
Empowered lives.
Resilient nations.

EXECUTIVE SUMMARY

COMPETITIVENESS AND LINKAGES IN CAMBODIA'S MANUFACTURING SECTOR



Discussion Paper No. 12

2014

Executive Summary, Competitiveness and Linkages in Cambodia's Manufacturing Sector

DISCLAIMER:

The responsibility for opinions in this publication rests solely with the authors. The publication does not constitute an endorsement by the United Nations Development Programme or the institutions of the United Nations system.

EXECUTIVE SUMMARY

COMPETITIVENESS AND LINKAGES IN CAMBODIA'S MANUFACTURING SECTOR

Discussion Paper No. 12

2014

FOREWORD

Cambodia has achieved remarkable development over the past decades. The economy has grown impressively on average at 7.7 percent over the period 1993-2013, making it one of the best performing economies in the world. Robust economic growth has significantly contributed to poverty reduction. Poverty rate declined from around 53 percent in 2004 to less than 20 percent now.

There is, however, a consensus that Cambodia needs to accelerate economic and industrial diversification, shifting from the currently narrow-based growth to a more broad-based growth. This is obvious that Cambodia needs to promote more industrial and higher value-added activities through enhancing labour productivity and attracting more quality foreign direct investments.

Responding to this formidable challenge, the Linking Policy and Practice (LPP) project of the United Nations Development Programme (UNDP) Cambodia undertakes a study on "Competitiveness and Linkages in Cambodia's Manufacturing Sector." The study is conducted to support the industrial development policy of the Royal Government of Cambodia in understanding the current status of the manufacturing sector and promoting the development of new industries in Cambodia.

The study highlights key strengths and weaknesses as well as the linkages and spill-over effects of the manufacturing sector that serve as the critical findings for diversifying the industrial base. The manufacturing sector's competitiveness is constrained by key factors such as a lack of infrastructure support (i.e. energy supply and transportation), a lack of skilled labour and rising labour costs, and rudimentary regulatory framework in terms of transparency of investment incentive schemes.

As such, the study provides a series of policy recommendations including adopting human capital development policy, public-private partnership framework, and fiscal reform in order to support industrial development in Cambodia. Particularly, the study reveals that skills development and training and retooling workforce are vitally important to absorb technology transfers, to move up the production value chain, to create domestic linkages with multinational activities, and to develop new industries.

This discussion paper is expected to contribute to knowledge body and policy debate on industrial development in Cambodia in her efforts to embark upon a new economic path to achieve sustainable, equitable, and inclusive growth.

UNDP Cambodia

ACKNOWLEDGEMENTS

The study is undertaken by UNDP Cambodia in collaboration with the Supreme National Economic Council (SNEC) and the Council for the Development of Cambodia (CDC). The study is an initiative of the UNDP's Linking Policy and Practice (LPP) project and coordinated by Ms. Dinravy Khorn, UNDP Policy and Research Coordinator.

The research is led and written by Dr. Shandre M. Thangavelu, Associate Professor and Regional Director (Southeast Asia) at the Centre for International Economic Studies, Institute for International Trade, University of Adelaide. Mr. Runsinarith Phim, UNDP National Development Economist, has contributed extensively to the study from advising how the analytical framework of the study should be designed to reviewing empirical works and early drafts of the study. Mr. Roger Kuettel, UNDP Economist, and Mr. Kongkea Chhoeun, UNDP Extractive Industry Officer, have assisted with the field surveys and peer reviewing the drafts of the study.

We would like to extend our gratitude to SNEC research team led by His Excellency Ros Seilava, Secretary of State of the Ministry of Economy and Finance; CDC Senior Officials led by His Excellency Sok Chenda Sophea, Minister attached to the Prime Minister and Secretary General of the CDC, for providing valuable guidance and comments and facilitating the field surveys.

The study has greatly benefited from the views, suggestions, and recommendations of relevant stakeholders during the consultation meetings throughout 2014.

ABBREVIATION AND ACRONYMS

ASEAN	Association of Southeast Asian Nations
CDC	Council for the Development of Cambodia
CET	Continued Education and Training
FDIs	Foreign Direct Investments
GDP	Gross Domestic Products
MNCs	Multinational Corporations
NIS	National Institute of Statistics
PPP	Public Private Partnership
RGC	Royal Government of Cambodia
SEZs	Special Economic Zones
SMEs	Small and Medium-sized Enterprises
SNEC	Supreme National Economic Council
STEM	Science, Technology, Engineering and Mathematics
SWOT	Strengths, Weaknesses, Opportunities and Threats
TVET	Technical and Vocational Education and Training
UNDP	United Nations Development Programme

EXECUTIVE SUMMARY

1. According to the Supreme National Economic Council (SNEC), the next stage of Cambodia's industrial development strategy focuses on transforming the economic structure of Cambodia, by providing more value-added from a wider economic base that can ensure sustained growth with equity. The objective is to upgrade the economy through promoting the development of the industrial sector, which would lead Cambodia towards a 'new phase of economic base diversification', through the use of its endowments and relying on Cambodia's comparative advantages.

Table 1: Cambodia's Economic Structure

	1990	1995	2000	2005	2010	2012
GDP at current price in billion Riels	598.6	8,437.7	14,089.3	25,754.3	45,942.2	56,616.8
as % of GDP						
Agriculture	55.6	47.4	35.9	30.7	33.8	33.6
Industry	11.2	14.3	21.8	25	21.6	29.7
Mining	0.5	0.2	0.2	0.4	0.6	7.7
Manufacturing	5.2	9.1	16.0	17.8	14.9	15.1
Electricity, gas, and water	0.4	0.4	0.4	0.5	0.5	0.5
Construction	5.0	4.5	5.2	6.3	5.5	6.4
Services	31.7	34.2	37.1	39.1	38.5	37.7
Trade	9.4	14.6	14.4	13.5	13.8	13.6
Transportation	3.8	5.2	6.6	7.4	7.5	7.5
Finance	6.8	6.6	7.3	7.7	6.9	7.2
Public Administration	4.7	2.8	2.7	1.8	1.8	1.5
Other Industries	7.0	4.9	6.1	8.6	14.0	7.9
Less: Imputed bank service charges		0.9	1.1	1.0	1.2	1.2
Taxes less subsidies on production and Imports	1.5	4.7	6.2	6.2	7.2	7.0
Total	100	100	100	100	100	100

Source: ADB Statistical Database System

Table 2: Key Indicators of Some Asian Countries

Country	Gross Domestic Product at PPP (current international dollars, million)		GDP Per Capita at PPP (current international dollars, million)		Growth rates of Real GDP (%)		
	2000	Latest (2011)	2000	Latest (2011)	1990	2000	2011
China, People's Rep. of	2,987,949	11,347,450	2,357	8,422	3.8	8.4	9.2
Cambodia	11,440	33,805	918	2,328	1.2	8.4	7.1
Indonesia	496,572	1,131,166	2,412	4,682	9.0	4.9	6.5
Lao PDR	6,055	15,167 (2010)	1,190	…	6.7	6.3	…
Malaysia	212,058	464,830	9,028	16,034	9.0	8.9	5.1
Myanmar	…	…	…	…	2.8	13.7	…
Philippines	185,003	392,709	2,410	4,170	3.0	4.4	3.9
Singapore	136,012	316,741	33,767	61,103	10.1	9.0	4.9
Thailand	136,012	647,132	5,086	9,573	11.2	4.5	0.1
Viet Nam	109,999	301,728	1,426	3,435	5.1	6.8	5.9

Source: ADB Statistical Database System

2. In close collaboration with SNEC, the United Nations Development Programme (UNDP) is conducting a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis of the Cambodian economy, with a specific focus on the manufacturing sector, to increase its competitiveness in the global production value-chain. This study is part of the discussion between UNDP and SNEC under UNDP's policy support to the Royal Government of Cambodia (RGC).

3. The objective of the study is to support industrial policy in developing key industries that will increase the competitiveness of domestic industries and inclusive growth for the Cambodian economy. This is expected to create more equitable growth, human capital development and inclusive growth to generate welfare improvements for the Cambodian people. The inputs of the study are expected to provide valuable insights to the RGC in developing its long-term vision towards 2030 for sustainable and inclusive growth for the Cambodian economy.

Table 3: Growth Rates of Industry Real Value Added (%)

Country	1990	2000	2011
China, People's Rep. of	3.2	9.4	10.6
Cambodia	-2.1	31.2	14.5
Indonesia	11.5	5.9	5.3
Lao PDR	16.2	9.3	...
Malaysia	11.0	13.6	2.7
Myanmar	5.5	21.3	...
Philippines	2.6	6.5	2.3
Singapore	9.3	12.4	6.8
Thailand	16.1	2.7	-3.9
Viet Nam	2.3	10.1	5.5

Source: ADB Statistical Database System

4. The paper adopts the SWOT framework to analyze the potential of Cambodia's manufacturing sector to increase its global value-chain production and identify its potential in ASEAN integration in 2015. The SWOT focuses on identifying key problems and possibilities and creating general directions for reform. It also covesr key industries from four provinces and special economic zones (SEZs) from Battambang, Siem Reap, Svay Rieng and Sihanoukville.

5. The study also uses the Input-Output table for Cambodia to study backward and forward linkages for manufacturing industries. The Input-Output table can be used to analyze production at its various stages, in terms of intermediate inputs and final output. The output of the industries in the Input-Output table could be used to identify various forward and backward linkages in the production process. These linkages identify the strengths and potential of domestic industries in supporting multinational activities, as well as regional production and supply-chain activities. The quantitative Input-Output analysis will complement the qualitative SWOT analysis of the manufacturing sector.

KEY RESULTS OF THE SWOT ANALYSIS ON THE MANUFACTURING SECTOR

1. Low labour cost is cited as one of the key factors for locating in Cambodian SEZs. However, several foreign companies highlighted the rising cost of labour in Cambodia as one of the key concerns for foreign operations in the domestic economy.

Table 4: SWOT analysis for selected Cambodian manufacturing companies (Ranking 1 is very important)

Strengths	Weaknesses
1. Labour market conditions (low labour cost and training development of workers) 2. Fiscal incentives (tax exemption, tax holidays, import-duty exemption, etc.) 3. Greater access to imports (foreign intermediate inputs) 4. Linking to foreign firms	1. Low labour productivity (low education) and rising cost of labour 2. Poor infrastructure – roads, highways, internet connections, etc. 3. Poor electricity and energy supply (including water supply) 4. Lack of skilled workers 5. Lack of domestic manufacturing base – lack of domestic industrial linkages 6. Weak labour regulations – management and enforcement 7. Poor legal and regulatory institutions – lack of regulation on tax exemptions and holidays (companies keep changing their registered company name to keep their tax holidays) 8. All intermediate inputs are imported – no domestic linkages
Opportunities	**Threats**
1. Strong educated and trained workers (training is important) 2. ASEAN integration and production value-chain 3. Proactive Government and business-friendly policy 4. Strong outlook for foreign investors (foreigners' expectations)	1. Lack of strong regulations – labour regulations 2. Emerging ASEAN countries such as Myanmar 3. "Hallowing-Out" of domestic industries – MNCs moving to neighbouring countries a. Lack of trained workers b. Rising cost of labour

2. Tax and import duty exemption is cited as the next important factor, and is one of the key pull-factors for locating in Cambodia.

3. However, tax evasion and "loop-hole" mining by foreign companies, in terms of de-registering and changing the name of the company to get further tax exemptions as a "new" company to prolong and retain their tax incentives and import subsidies was observed. The Government needs to consider a progressive tax and incentive system that allows for upgrading multinational corporations (MNCs) further up the production value-chain. This will be important to retain quality MNCs and quality multinational activities in the Cambodian economy.

4. Several foreign companies, especially Japanese MNCs, see opportunities in the Cambodian economy beyond tax exemption and low labour costs. The ASEAN production value-chain, domestic capacity building (human capital development) and the growth of the domestic manufacturing base are cited as key factors for creating opportunities in Cambodia.

5. Lack of proper infrastructure support (highways) both outside and within SEZs was highlighted as a key challenge for the competitiveness of the manufacturing sector in Cambodia. Firms face difficulties with energy and electricity supply, as their operations are frequently disrupted by electricity and water stoppages.

6. Several multinationals, especially those from Japan and Korea, raised concerns around the regulatory framework in terms of transparency of investment incentives and import duty exemptions provided by the Government. They highlighted that there are few clear rules and regulations for business operations.

7. Japanese and Korean investors are more concerned with creating domestic capacity in terms of training, research and development, and developing domestic industries and linkages.

8. The Japanese are willing to share costs with the Government and participate in public-private partnership (PPP) programmes. They expect and prefer a greater domestic manufacturing production base to create agglomerative effects in Cambodia. Japanese investors see greater opportunities in Cambodia as the production value-chain shifts down from Thailand and Viet Nam (Thailand + 1 Strategies).

Table 5: Strengths and Weaknesses of SEZs in Cambodia

Strengths	Weaknesses
1. Access to foreign goods 2. Tax exemptions and import duty exemptions 3. Employment – low labour costs	1. Weak domestic suppliers 2. Poor infrastructure support a. Poor supply of electricity, water and telecommunication services b. Weak SEZ operations – not providing sufficient infrastructure, no forward-looking policies, weak in creating the clustering and agglomerative effects 3. Weak labour regulations and laws a. Weak regulation framework and policy for SEZs – "loop-hole" mining by foreign companies to retain their tax exemptions and holidays by de-registering and changing the names of the companies 4. No links to ASEAN production value-chains

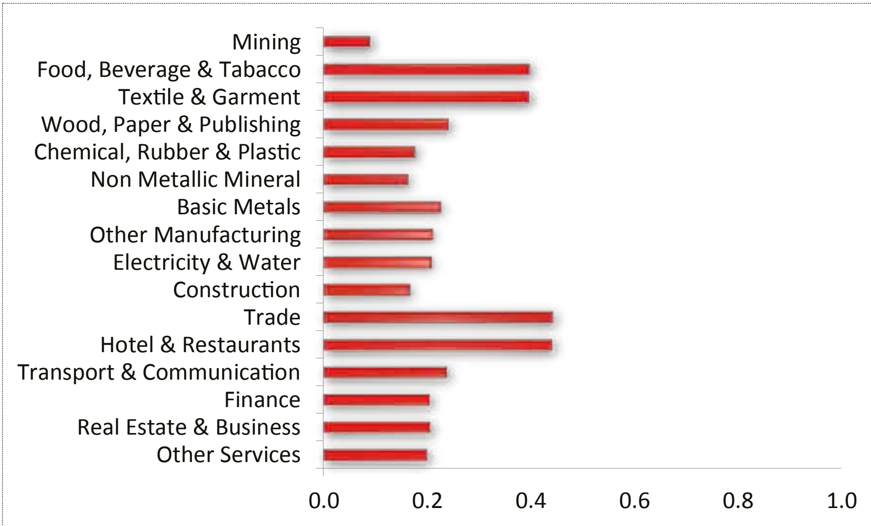
KEY RESULTS OF THE LINKAGES AND SPILL-OVERS ANALYSIS ON THE MANUFACTURING SECTOR

1. The study considered the linkages between domestic firms and multinational activities in the domestic economy. Linkages are created by the supply of material inputs and services provided by domestic firms. These linkages create avenues for technology, management, marketing networks and human resources to be transferred from multinationals to domestic firms. They link the type of activity of the multinationals with domestic absorptive capacity in terms of the activities of the domestic industries, level of human capital, and stable and transparent institutions.

2. We observed positive and statistically significant backward linkages for the services sector, but we did not notice statistically significant backward linkages for the manufacturing sector. This is likely due to the lack of strong domestic industries to form linkages with multinationals.

3. The horizontal linkage variable is negative and statistically significant. It is also negative and statistically significant for the services sector. We also observed that the forward linkage is negative for the overall manufacturing sector.

Figure 1: Backward Linkages



4. There is a significant technology gap between foreign and domestic firms, however there are positive impacts in the domestic absorptive capacity from the forward linkages. We observed that higher productive domestic firms tended to enjoy higher horizontal linkages and benefited more from the backward linkages of the multinational activities.

Figure 2: Horizontal Linkages

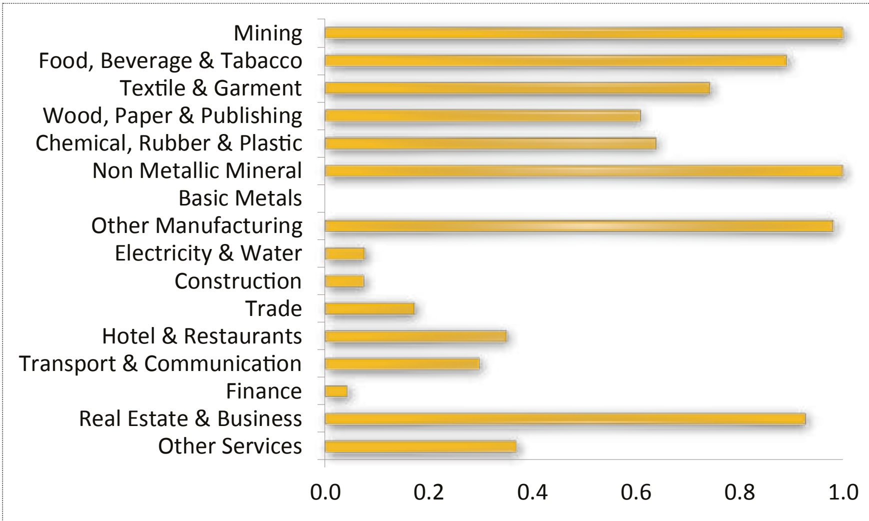
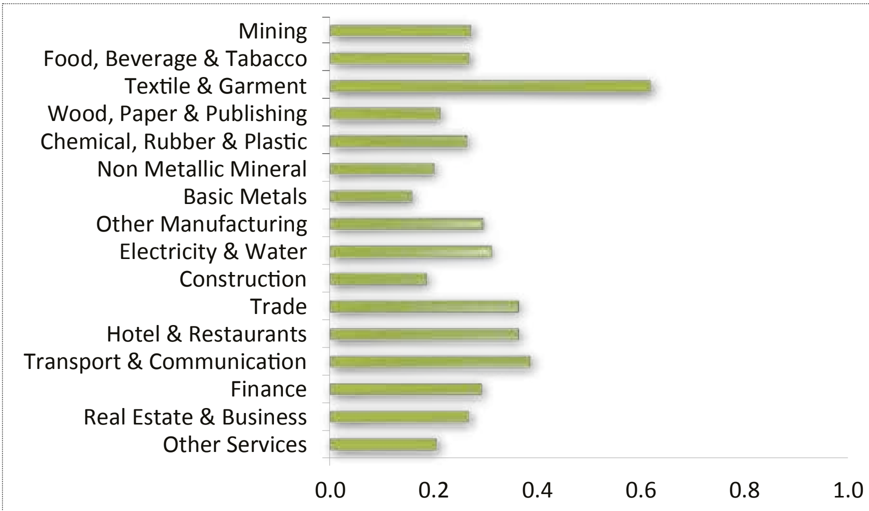


Figure 3: Forward Linkages



KEY RECOMMENDATIONS

1. The **Human Capital Development Policy** will be crucial to creating and sustaining a competitive edge among industry in the Cambodian economy. Improving human capital is critical to improving the productivity of Cambodian workers in a tight labour market. Developing human capital will help alleviate the skilled labour crunch and increase incentives to move towards capital-intensive production. The SWOT analysis reveals the importance of skills development and training workers to the multinationals. Several multinationals highlight that one of the key weaknesses of the Cambodian economy is in skill development; this will have important implications for adopting new technologies and moving up the production value-chain. Further, empirical analysis reveals the importance of skilled workers absorbing and creating strong domestic linkages to multinational activities. This can be achieved through:

   a. The use of educational reform to improve education at secondary level and to increase training and retooling programmes such as progressive continued education and training (CET) and technical and vocational education and training (TVET) to develop workers' skills.

   b. Align and consolidate existing CETs and TVETs into a progressive framework. The consolidation will reduce overlap and improve the efficiency of domestic and foreign funds and resources for training.

   c. Improve the quality of training by accreditation of CET and TVET programmes through public private partnership (PPP) initiatives. Industrial associations could play an important role in the accreditation of training programmes.

   d. Increase young people's incentive to invest in education. The Government could set up an educational subsidy (conditional cash transfers) directed at households to reduce the opportunity cost of working and to increase returns on investing in education.

   e. STEM – Science, Technology, Engineering and Mathematical skills should be taught from an early age. Curriculum reform, in terms of standardization, should be implemented at the primary school level.

   f. Develop strong labour institutions that increase returns on investing in human capital for both employees and employers. For example, the Tripartite Wage Bargaining system consisting of government, employers and employees (unions) would be a useful framework.

2. **Fiscal reform** to improve the provision of government services to industry and increase competitiveness.

    a. Currently, fiscal incentives (especially tax holidays, tax exemptions and import duty exemptions) have been the key attractions for labour-intensive multinational firms to locate in Cambodia. The Government could consider using this policy instrument to retain existing firms and attract viable multinationals from Thailand and Viet Nam. Given that labour-intensive multinational firms in the garment sector are cost-sensitive, a robust incentive package could potentially delay their inevitable exit from Cambodia to neighbouring Myanmar where wages are comparatively lower.

    b. However, the above simple fiscal tool is not sufficient and sustainable in the current economic climate, without raising government revenue.

    c. To raise revenue, the Government must provide transparent rules and regulations on tax incentives. The Government could consider a progressive tax and incentive system to manage and move multinationals up the production value-chain.

    d. The SWOT study highlights that several multinationals "loop-hole" mine the tax incentive system. The Government needs to improve its enforcement of the tax incentive system and close "loop-hole" mining by the companies. "Loop-hole" mining reduces the effectiveness of tax exemptions in reducing the location cost of foreign companies establishing their initial operations in the economy. It is important that Cambodia attracts quality foreign direct investment (FDI) activities that contribute to the industrial and economic development of the economy. These contributions could be in the form of corporate tax and corporate social responsibility. Foreign firms that are not able to make economic and social contributions are mostly unregulated in terms of cost of production, they do not adopt or diffuse technologies, and they can exploit unskilled workers. These foreign firms are likely to move to other low-cost countries as labour costs increase in the domestic economy.

    e. A reduction in tax incentives could be offset by more progressive tax incentives for training, investment in capital, and innovation in the company. This could assist multinationals move up the production value-chain.

f. The Government can use progressive tiers of fiscal incentives, identifying key elements of tax incentives and subsidies – pioneer status, capital progressive status, human capital development incentives, etc. This provides better targeting and reduces the moral hazard of multinational companies to "loop-hole" mine the tax system. It also provides better management of multinationals from pioneer status to more capital and technology-intensive status.

g. Having tiered fiscal incentives will differentiate the truly committed multinationals; these could be appropriately compensated.

h. The increased revenue collected from foreign operations could be effectively used for improvements in infrastructure, education of workers and to provide administrative services to the business community.

i. The Government could consider amending the investment laws to reduce "loop-hole" mining in the system. There is already some consideration by the Government to revise the Investment Law to close "loop-holes".

3. **Public-Private Partnership (PPP) framework** is the key to creating externalities in the domestic economy. PPP is defined as partnerships between the public and private sectors to design, plan, finance, construct and/or operate projects traditionally provided by the Government. PPPs can achieve greater efficiency and cost effectiveness in the delivery of public services, greater value for money than traditional outsourcing, and can capitalize on private sector expertise. PPPs will also reduce the fiscal and revenue burden on the Government and focus on corporate social responsibility of private companies.

    a. Under the PPP arrangement for human capital development, a vocational training centre for a strong technical workforce could be jointly financed, constructed and operated by a group of private sector investors, with the Government.

    b. The training curriculum could be aligned towards the needs of the private sector thereby meeting the quality and skill requirements of companies (see Japanese-Singapore Technical Training Centre; Vietnamese-Korean Technical Education Centre).

    c. In turn, companies could send their workers to the training centre for training and upgrading their skills.

d. The PPP arrangement could also consider scholarships and grants to young workers to pursue vocational and technical training relevant to the labour market.

e. Under the PPP arrangement for infrastructure development, the Government could share the cost of infrastructure investment and the provision of government services to the public. This would reduce the fiscal burden and allow the Government to better allocate public funds.

f. Under the PPP arrangement for labour market institutions and coordination of industrial policy, a tripartite framework of workers, employers and government could be set up to better manage the wage bargaining framework in the Cambodian economy.

4. The Cambodian Government should **develop local manufacturing and anchor industries**. One possible way to develop a local industrial base is to consider creating and supporting local anchor industries by promoting "Export-Promotion with Import-Substitution Policies". This could be achieved by locating domestic industries in SEZs, as well as developing SEZs for small and medium-sized enterprises (SMEs). This would help create clustering and agglomerative effects and positive externalities to form key backward and forward links for multinational activities.

a. The SME SEZs could be progressively improved to leverage the growing regional production value-chain as the ASEAN Economic Community is formed in 2015-2018.

b. As further incentive for these local SMEs, the Government could provide: (a) the necessary infrastructure to localize their activities; (b) incentives for training local workers; and (c) similar tax incentives and import duty exemptions currently available to multinationals.

c. The Government could focus on global value-chain production tiers used by Japanese multinationals: Tier 1, Tier 2, Tier 3, etc. There is a need to develop supply chain mapping of the Cambodian industrial sector (manufacturing and services). There is an urgent need to do a study of the Cambodian economy.

d. Tax incentives to SMEs could be aligned with the quality of services and links provided to MNCs and the level of employment created in the domestic economy.

e. Government subsidies could be provided to SMEs for training and investment in capital.

5. There is a need to take a **differentiated approach in attracting FDIs**, as the types of multinational activities have different impacts on the domestic economy – Chinese, Japanese and Korean investments. The SWOT study suggests SEZs operated and managed by different foreign consortiums tend to have different impacts on the domestic economy in terms of employment, skills development and creating linkages to the domestic economy.

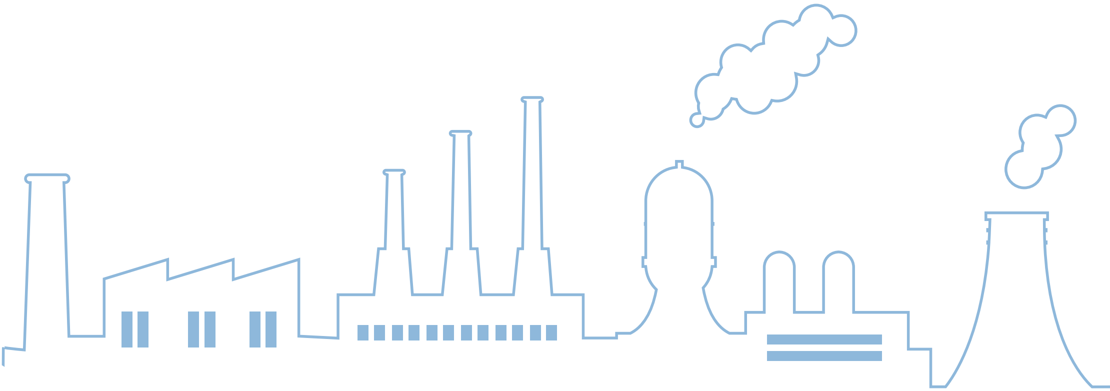
   a. The Government could create more competition across SEZs. It could set clear key performance indicators – identify best performing SEZs with good practices and benchmark other SEZs in the economy.

   b. The Government could encourage different operators, such as Japanese, Korean and Chinese investors to run SEZs to create greater competition. This would create agglomerative effects from the multinationals, and allow greater "trickle-down" effects from the activities of MNCs in the region.

6. There is a need for **institutional reform** in the Cambodian economy to reduce rent-seeking activities. This will increase government revenue and efficiency in the economy. The increase in government revenue could be used for human-capital development and infrastructure development.

   a. The increase in revenue could be allocated to increase the wages of civil servants and teachers.

7. The Government could consider **improving the structure and stature of the Council for the Development of Cambodia (CDC)** to a similar status as that of the Economic Development Board of Malaysia and Singapore. This would coordinate and strategize industrial development.



Empowered lives.
Resilient nations.

United Nations Development Programme

Pasteur Street, Boeung Keng Kang
P. O. Box 877, Phnom Penh, Cambodia
Tel : (855) 23 216 167 or 214 371
Fax : (855) 23 216 257 or 721 042
E-mail : registry.kh@undp.org
www.kh.undp.org