

Brief report by Raymond Wong after  
CSHK Research visit to Cambodia  
(3-9 March 2019)

In this presentation Raymond will talk about the following points of concern after his visit as a member of the CSHK delegate to Cambodia (3 to 9 March 2019)

- General city layout and urban condition of Phnom Penh.
- Existing infrastructure in Cambodia – railway, highway, land formation, port facilities and special economic zones.
- Other daily livelihood of Cambodian
- Relationship of Cambodia with China
- Sign of professionalism

General city layout and urban  
condition of Phnom Penh

Brief description of Phnom Penh

Beginning in 1870, the French colonial authorities turned a riverside village into a city (Phnom Phen) where they built hotels, schools, prisons, barracks, banks, public works offices, telegraph offices, law courts, and health services buildings. In 1872, the first glimpse of a modern city took shape

1920s, Phnom Penh was known as the "Pearl of Asia", and over the next four decades, Phnom Penh continued to experience rapid growth with the building of the Airport and railways to Sihanoukville. Phnom Penh's infrastructure saw major modernisation under the rule of Sihanouk.

The city was in the hand of Pol Pot from 1975 to 79. A period of reconstruction after falling of the Pol Pot, spurred by the continuing stability of government, began to attract new foreign investment and aid by countries including France, Australia, and Japan. Loans were made from the Asian Development Bank and the World Bank to reinstate a clean water supply, roads and other infrastructure. The 1998 Census put Phnom Penh's population at 862,000; and the 2008/2018 census was 1.3/2.1 million.

### Observation:

- City layout of Phnom Penh (core districts) is basically based on the French planning.
- Certain strategic districts can be observed including:
  - Land belong royal family and special social groups
  - Traditional old city zones
  - Central government & administration
  - Business & commercial
  - Industrial district
  - tourist district
- City within a broad plain layout makes connectivity not easy in particular without public transport.
- Limited landscaping and public space
- Lack of public facilities (sport & recreation, community hall, social centre, library, ..... )
- Congested land-block, narrow roadway and weak in land administration makes use of land hard to control
- Large number of illegal construction
- No obvious slum area have been observed



Overview of the city centre of Phnom Penh (facing Central Market)



Overview of the city centre of Phnom Penh (facing Mekong River with National Assembly and Buddhist Institute in foreground)





Existing infrastructure in Cambodia – railway, highway, power supply, land formation, port facilities and special economic zones.



Map showing the major roadway/railway of Cambodia



# Cambodia Railway Network



## Royal Railway (Cambodia)



### Airport Train Service

A passenger train is at present runs every 2 hours from the Phnom Penh station to Pochentong Airport.

### Proposed Rail to Ho Chi Minh City

A new railway connecting Phnom Penh to Ho Chi Minh City is in planning, which would form part of the rail link from Singapore to Kunming if being completed.

China Railway Group is planning to build a 405 km north-south railway across Cambodia, which would support planned expansion of the steel industry in Cambodia.



Phnom Penh – Sihanoukville train at Takeo station



Motorcyclists wait while a passenger train moves through a crossing in Phnom Penh



Existing roadway from Phnom Penh to Sihanoukville (National Road No 4). Observation:

- The connecting roadway in approx. length – 240 km
- It is the busiest thoroughfare in the country
- Provide only two-way single lane traffic
- Basically paved with bitumen surface (since 2015, but without standard trimming like the road curb or give ways)
- Alignment in reasonable design but because of extremely heavy traffic (containers) that caused accidents frequently.
- The roadway cuts across a number of village towns that also worsen the condition of traffic.
- Contract being signed with Chinese contractor in March 2019 to construct a new expressway to replace the old roadway. It stretches about 190 kilometers in 2-way dual-lane design. It takes four years to complete.

## 東首條高速：金港高速公路

The first expressway in Cambodia: Phnom Penh - Sihanoukville

Construction began: 2019.3.22.

**Rectangular Strategy** Phase IV, which still mainly focuses on four priority sectors, namely human resource, road, water and power.



城市：	金邊-西港
長度：	Phnom Penh -Sihanoukville
成本：	190 km
車速：	USD 2 billion
發展商：	100 km / hour
工程需時：	CRBC 中國路橋
模式：	48 months
就業：	BOT
	6,000 jobs



Major roadway inside the city of Phnom Penh



Roadway from Phnom Penh to Sihanoukville





Roadway from Phnom Penh to Sihanoukville



#### Other comment - The urgency of highway construction

- Cambodia is urgently in need of a modern road network to serve the 180,000 km<sup>2</sup> territory.
- For the past decades, upgrading or extending of the existing roadway are all done in a piecemeal manner without a solid long-term strategic plan.
- Another major highway connection is from PP to the border of Vietnam, yet it is still under negotiation for years still without a final scheme.
- Reasons for the lagging behind mainly come from finance and sometimes political concerns.



Construction of the Chom Chao flyover recently started. it is part of the airport traffic relief projects.

#### Land form and pattern of urbanization, observation:

- Cambodia's landscape is characterized by a low-lying central plain that is surrounded by uplands and low mountains and includes the Tonle Sap (the Great Lake) and the upper reaches of the Mekong River delta. Extending outward from this central region are transitional plains, thinly forested and with the highest ground about 200m above sea level.
- Very low level of urbanization
- Most population gathered along national roadway and major river plain and delta.
- Since Cambodia economy is heavily based on primary products (agricultural, fishing, forestry etc.), without a convenient road system to transport the outcome products is a deficiency of the economy.
- New lands are being formed especially along some economic-active regions, yet they are all done in a piecemeal manner without well coordinated planning.

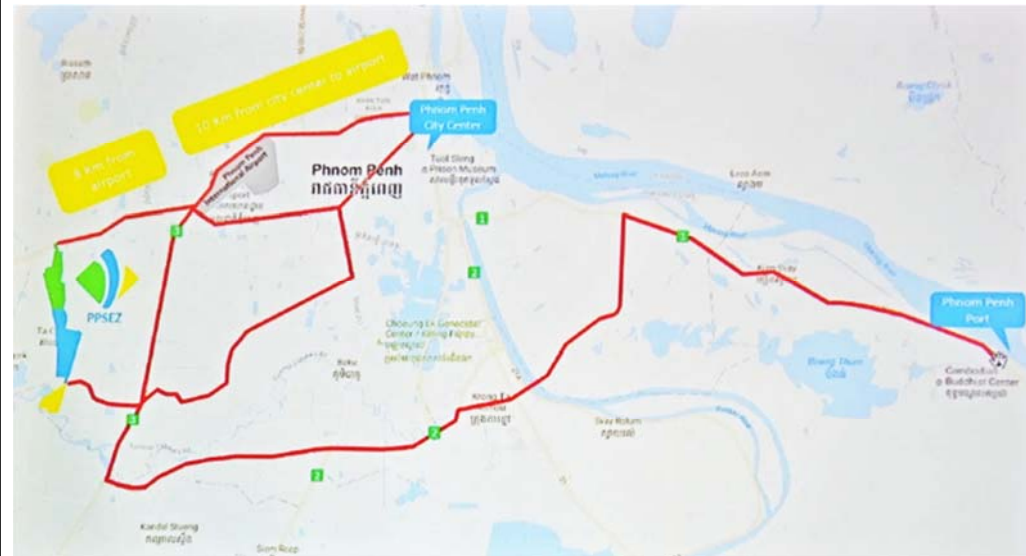


An environmental unfriendly way to obtain land – burning the trees and shrubs before the formation



#### Port facilities, observation:

- There are two operating port in Cambodia, one is the Phnom Penh Autonomous Port (PPAP) which is a river port (Mekong River). The other is Sihanoukville Autonomous Port (SAP), a sea port facing the Bay of Thailand.
- Goods from PPAP need to pass through facilities and custom in Ho Chi Minh City, Vietnam.
- Container is not too effective for the delivery of primary products
- Without an efficient highway connection, products getting to the port are expensive and taking longer time.



Location of the PPAP and the PPSEZ





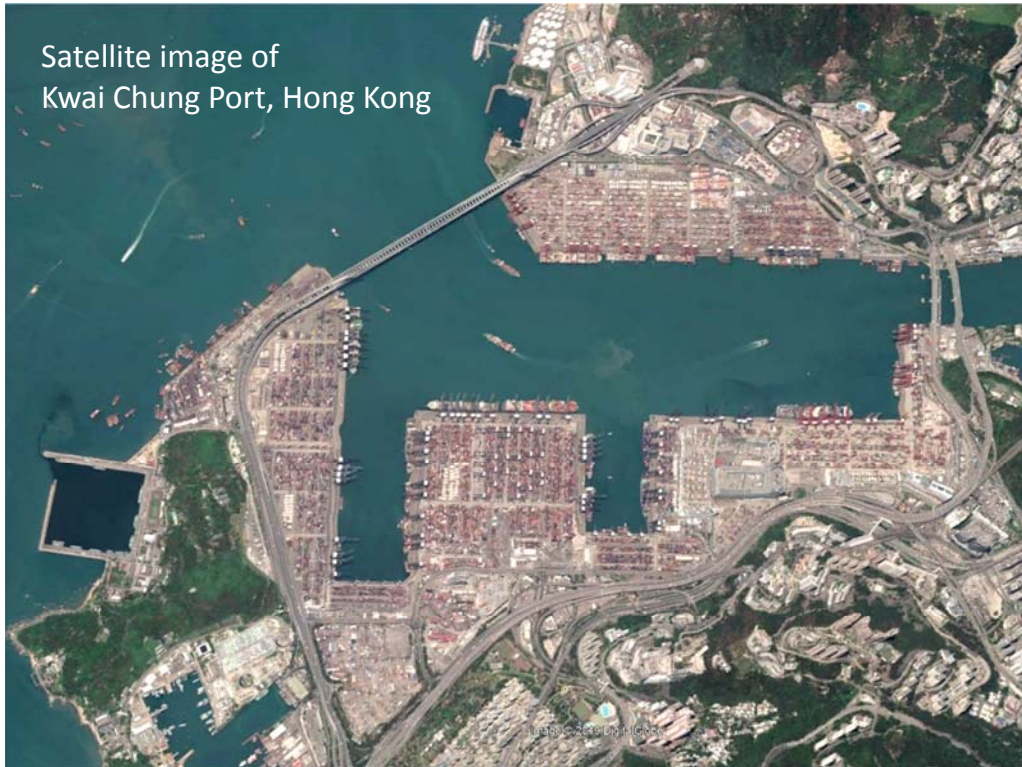




Location of the SAP and the Sihanoukville SEZ



Satellite image of the SAP



Satellite image of Kwai Chung Port, Hong Kong



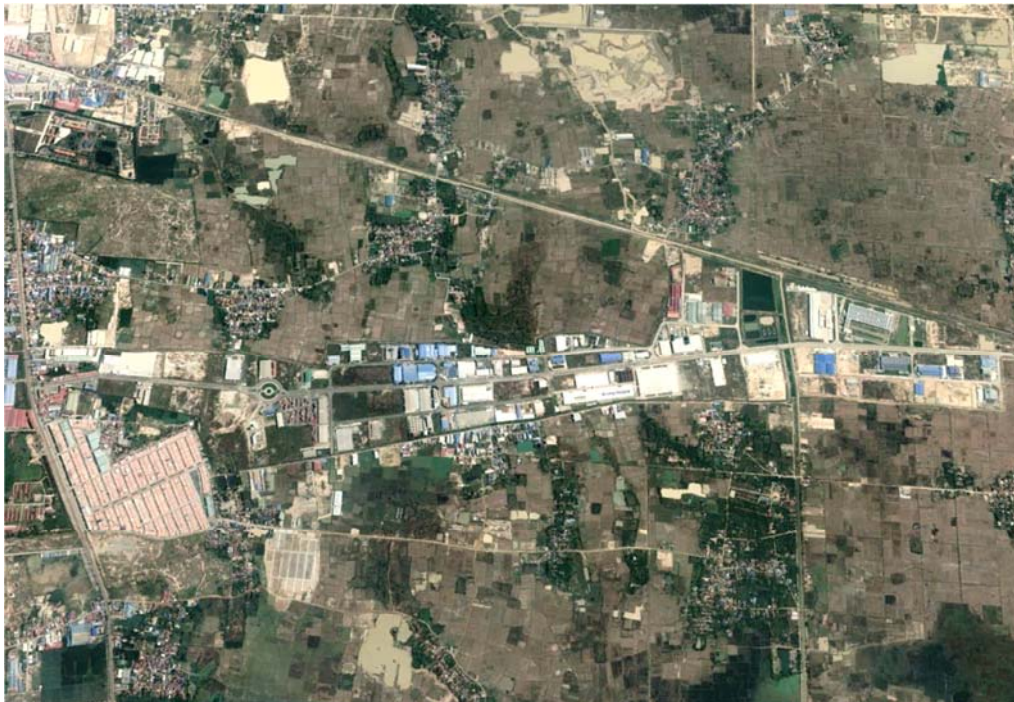
Major Special Economic Zones (SEZ) in Cambodia, observation:

- There are two major special economic zones in Cambodia, one is the PPSEZ. The other is Sihanoukville SEZ, both are established in 2008.
- The development of these SEZ cannot be said as very successful. There are still a lot of vacated land awaiting for investments.
- Limited worker population around the areas causes the draw-back of the SEZ development.
- Other **alternative substitutions** to acquire land is also easy in Cambodia.

Special Economic Zones in Cambodia, 2014

Location	Name of SEZ	Year Established	Number of Firms Operating	Total Employment	Employees per Firm (avg)
Phnom Penh	Phnom Penh SEZ	2008	50	17,000	340
Bavet	Manhattan SEZ	2006	26	28,051	1,079
	Tai Seng Bavet SEZ	2007	17	7,968	469
	Dragon King SEZ	2013	2	280	140
Sihanoukville	Sihanoukville SEZ 1	2009	2	424	212
	Sihanoukville SEZ 2	2008	40	8,967	224
	Sihanoukville Port SEZ	2012	2	416	208
Poi Pet	Poi Pet O'Neang SEZ	2011	2	830	415
Koh Kong	Neang Kok Koh Kong SEZ	2005	4	3,953	988
Total	All Cambodian SEZs	2005	145	67,889	468

Source: Council for the Development of Cambodia, Government of Cambodia. <http://www.cambodiainvestment.gov.kh/list-of-sez.html>



Satellite image of the PPSEZ



Satellite image of the Sihanoukville SEZ





Some views taken in the  
Sihanoukville SEZ



Aerial views of the  
Sihanoukville SEZ



### Existing infrastructure in Cambodia – power plant

Hydroelectric station	Capacity (MW)	Units	Year completed
Kirirom 1 Hydropower Dam	12	2 x 6 MW	1965
O Chum 2 Hydropower Dam	1		1992
Kamchay 2	10.1	3 x 3.1 MW, 1 x 800 kW	2009
Kamchay 1	193.2	3 x 64.4 MW	2011
Kirirom 3	18	2 x 9 MW	2013
Stung Tatay	246	3 x 82 MW	2014
Stung Atay	120	4 x 25 MW, 2 x 10	2014
Sihanoukville I	100	2 x 50 MW	2014
Sihanoukville II	270	2 x 135 MW	2015
Russei Chrum Krom	338		2015
Lower Se San 2 Dam	400	5 x 80 MW	2017

Other daily livelihood of Cambodian



### General observation:

- Cambodia's per capita income is \$4,022 in PPP and \$1,309 in nominal per capita. Cambodia is regarded as a Lower Middle Income country in 2016.
- Based on IMF figures, Average GDP growth for past two decades was around 7 % making it one of the world's top ten countries with the highest growth.
- Tourism was Cambodia's fastest growing industry,
- Most rural households depend on agriculture and its related sub-sectors. Rice, fish, timber, garments and rubber are Cambodia's major exports.
- Due to fertile land condition and mild tropical climate, though relatively primitive from the present world standard, Cambodia can be self-suffice from a daily livelihood level.
- In the cities, Cambodia is somewhat the level of China dating back to the 1970s.



Small street shops, hawkers and retail stalls are the main core of local economy







Means of transportation is a reflection of daily livelihood in Phnom Penh

## Relationship of Cambodia with China

### An initial network connecting China and Cambodia

The Royal University of Phnom Penh and the Embassy of the People's Republic of China successfully co-organized an **International Symposium** in December 2015, bringing together a network of scholars, policy makers, think-tanks and other stakeholders to explore the opportunities & challenges with an emphasis on the implications of the 'Belt and Road' initiative for Cambodia and the region.

The objectives of this international symposium are:

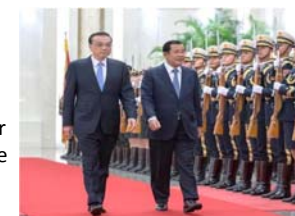
- To understand economic, socio-cultural and political developments of the 'Belt and Road' initiative in (BRI) Cambodia and the region;
- To explore possible implications of the BRI for the region;
- To explore challenges and opportunities arising from the BRI;
- To promote discussion among policy makers, scholars, researchers and analysts on the BRI initiative in relation to the region;
- To build a network of scholars, researchers, policy makers, think-tanks and other stakeholders concerning the initiative.

Addressed by Dr. NEAK Chandarith, Convener of the Symposium, Acting Head of Department of International Studies, Royal University of Phnom Penh.

"Since a long time ago, our two countries, Cambodia and China, have always had mutual understanding, mutual trust and support for each other. We have always been true partners on every dimension. In addition, heads of states of both countries have frequent interactions, and our economic cooperation has also yielded plenty of fruitful results."

Over the years, crucial and large-scale cooperation projects are having close relationship with Chinese. This included the Sihanouk Ville Special Economic Zone, Cambodia-China Special Economic Zone in Koh Kong province, airports, ports, hydro-power plants, electronic networks, high-speed roads and industrial and agricultural zones.

Chinese Premier Li Keqiang holds a welcoming ceremony for visiting Cambodian Prime Minister Samdech Techo Hun Sen before their talks at the Great Hall of the People in Beijing, capital of China, on Jan. 22, 2019.





**China key partner for Cambodia in infrastructure development: Cambodian officials (January 2019)**

Speaking to Xinhua ahead of Chinese Premier Li Keqiang's visit to the country, Minister of Public Works and Transport Sun Chanthol said "Cooperation between Cambodia and China in infrastructure sector is excellent, as most of the national roads in Cambodia have been built under concessional loans and grant aid from China,"

"More than 2,000 km of roads, seven large bridges, and a new container terminal of the Phnom Penh Autonomous Port have been constructed under China's aid," Chanthol said, adding that the Southeast Asian country needs around 500 million U.S. dollars a year for transport infrastructure development.

**Sign of professionalism**

Level of professionalism is a crucial factor for development, in Cambodia we can observed that:

- Capacity in every aspects of professionalism is weak, in particular towards procurement of engineering projects, urban planning, as well as environmental, building and development control.
- The situation can be reflected in the area of:
  - Land administration and master urban planning
  - Contract and legal administration for projects
  - Application of engineering standards
  - Ability to carry out large-scale construction projects
  - Ability to perform engineering design
  - strategic developments
  - Logistic support
  - Building quality and control
  - .....



Construction of a factory workshop using simple steel frame in the SSEZ



Using of technology in construction



Using of technology in construction







I am afraid I need to stop here, though  
I have a lot much to say, due to the  
limitation of presentation time.

Thanks and seeing you all next time.