

ESC Model City Phnom Penh

3rd High Level Seminar

06-08 March 2012

Siem Reap, Cambodia

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CAMBODIA

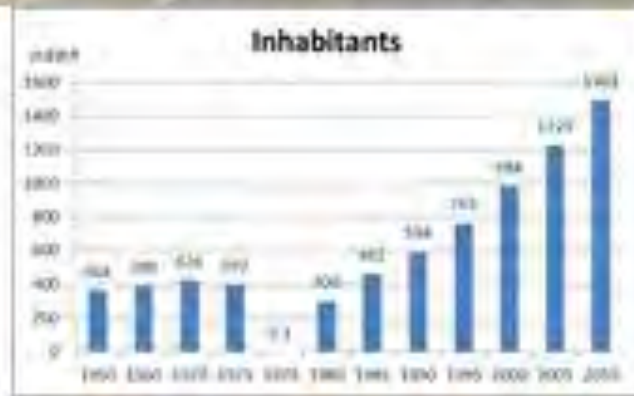
Land:
181,035 km²
Population:
14 millions



PHNOM PENH

Land:
678.46 km²
Population:
2 millions





City Profile

- Phnom Penh located in the junction of 4 Rivers, the city of water-view,
- Land covered of 678 Km², dividing into 8 Khan (districts), 96 Sangkat (commune) and 897 villages.
- Population increased accordingly from 600 000 in '90 to 1.5 M in 2010.
- The transportation means changed from ChhayKeo (man Pull-Cart) in 1950 to machinery vehicle in today.

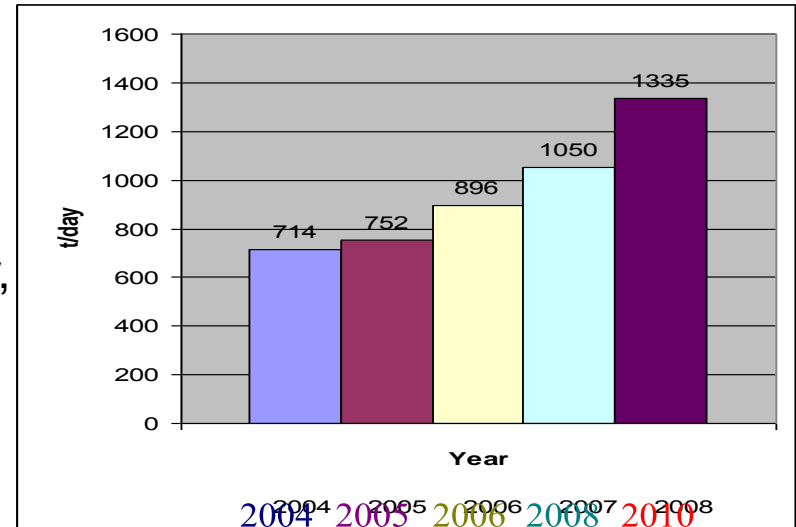
City Vision

- To achieve the rectangle strategy of the Government: Good governance, Agricultural development, Private & employment development, Human resources development and social Infrastructure development,
- To accomplish the City Development Strategic Plan 2015: 5 areas,(land-use/Environment/ infrastructure /Social services/economic development),
 - Environment: PNH Is sustainable development City: environmental preservation and protection, land water and air quality (Proper waste Management) to contribute the livable city and people living standard.

Background and status of SWM

Challenges

- Waste Generation per Capita in Phnom Penh= 0.70 kg/person/Day.(Jica)
- Due to Population Growth, Living standard, Industrialization and Technology, in PNH, the number of Final Disposal waste increased accordingly from 714 t/d in 2004 to 1335t/d in 2010.
- 60% of waste components are biodegradable.
- 30 ha used for 10 years= Land for LF is required for next generations.
- People Awareness on waste disposal and handling still limited: Mixed together, littering, illegal disposed and burnt. Don't care about amount of waste generation as well as categories.



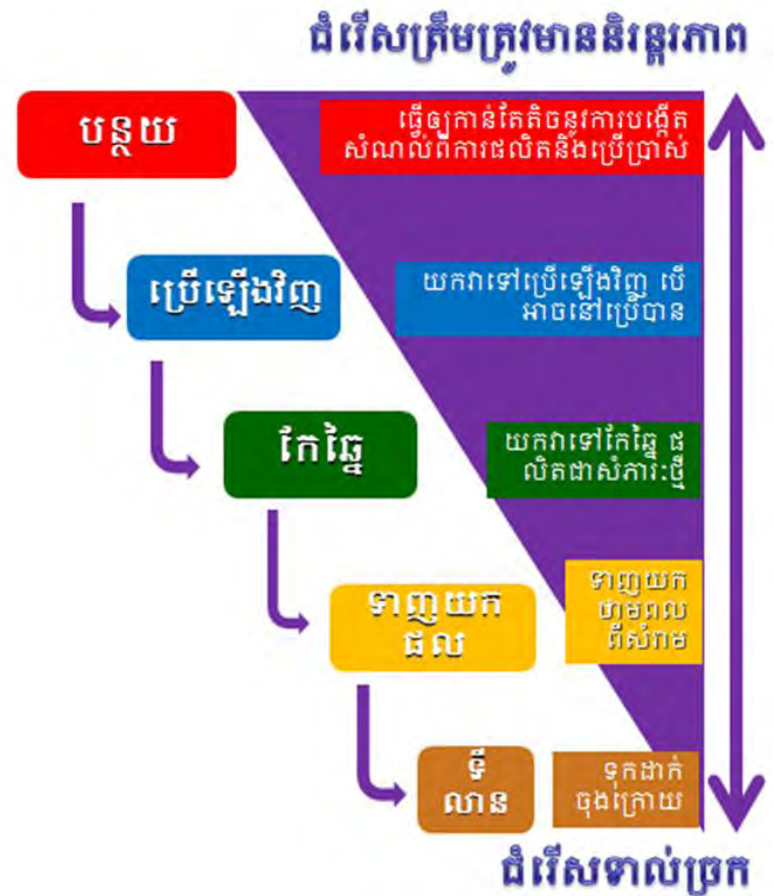
So far, What has been done?

- **Collection- Transportation :**
 - by City Department,1979-1993
 - by investor PAD,1994-95
 - by local authority-Private sector- 6 months of 1995
 - by Local authority +investor EDC,1996-97
 - by combined local companies PSBK,1997-2002
 - by private contractor CINTRI, 2003-now
 - Industrial waste collection- Disposal: Sarom Trading 2003-now.
- **Disposal site:**
 - 1979-2009: Stung Mean Chey Open Dumpsite: 8 ha++
 - Industrial waste disposal site: Sangkat Kantok, Private owner.
 - 2010- Now: Dangkor Dumpsite: 31.4 ha plan to use until 2020.
- **Generation and discharged:**
 - Most of Households kept the valuable waste for make income .
 - Invaluable waste: food, vegetable, kitchen and plastic bags mixed together for collection service.
 - Discharging schedule is depend on the living site: inner city(daily)/ outskirt (2-3 days)

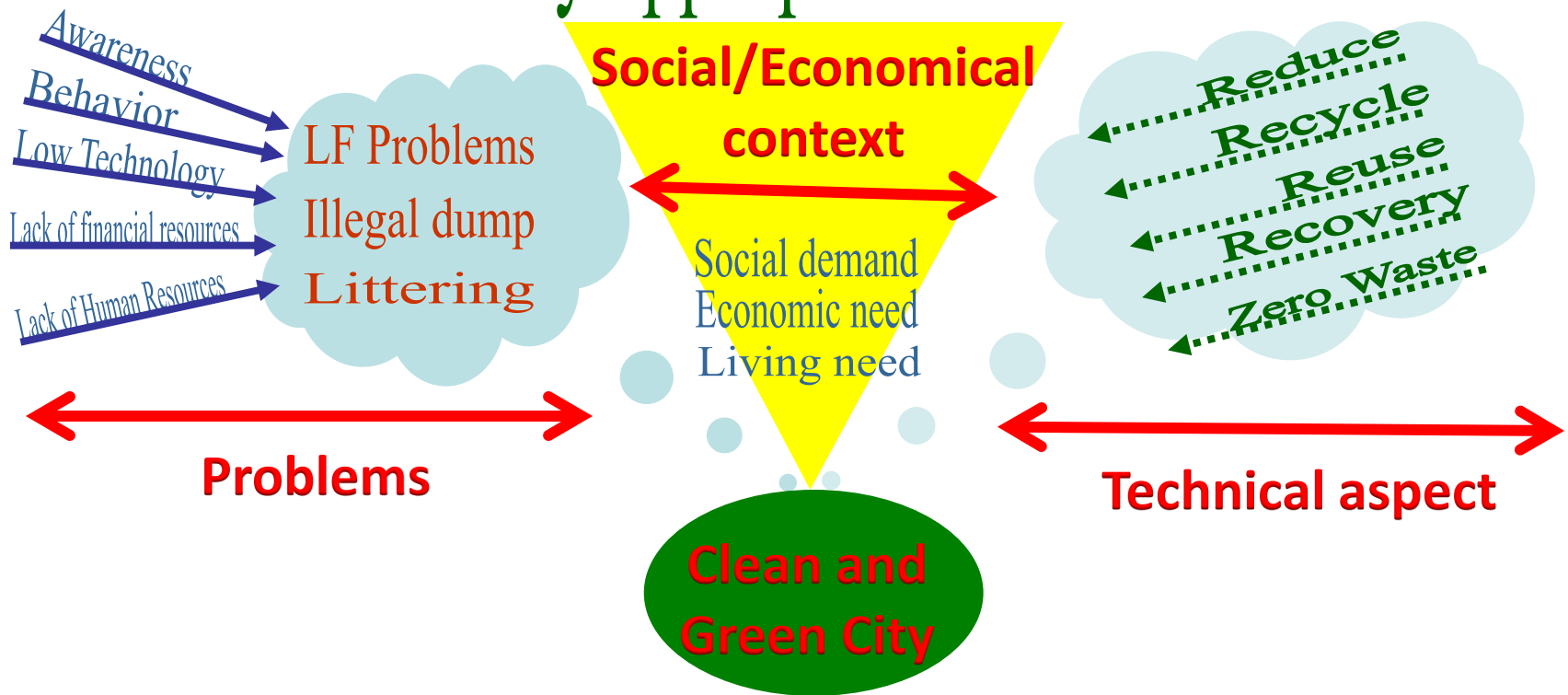
Dream and strategic plan

DREAM

- **Dream as Green & Clean City**
 - Land: No polluted land, proper waste Mgt, toward Zero waste in LF.
 - Water: 100% HH used portable water, Protected water resources.
 - Air: No polluted air, keep safe ambient air, good city transportation Management .



SWM by appropriate method



At least 20% per year will reduce by:

- ★ Awareness Raising
- ★ Segregation waste
- ★ Penalty

School Children, Mothers and Fathers

- Wet Waste:** Composting-Biodigester
- Dry Waste:** Recycle-Reuse
- 2.5\$/Each time** Strengthen law

Output and Achievement

Some Programs

- Dry Battery Waste collection- Disposal: DoEPP, 2007-now
- Medical waste collection- incineration: Red-cross, 2008-now
- Manure and Organic waste for Biogas: DoEPP-MPP, 2010-now
- Organic waste segregation and Penalty measure: MPP, 2010-now
- Plastic Bags reduction: MPP- DoEPP, 2011-now





Launching Penalty day

During the rainfall period, in the public garden we got more than 3000 attendants



03 April 2010

Segregation & Penalty: How and Who ?

- Educate People : by campaign and daily instruction, Together with:
 - Volunteer of school children as instructors
 - Environment Staff as instructor and fine agent.
 - Garden Guards as instructor and fine agent.
 - Market leaders and Commune leaders as instructor and fine agent.
- Implementing: by selected areas and communal responsible:
 - All 22 public markets carryout the clean Market strategy: own responsible for segregation & penalty.
 - All city gardens/ all villages : daily instruction and fine.
- Slogan: we want to make properly disposal better than penalty.

Concrete results

លរ	អន្តរាគមន៍	ផលិតផល		អំប៊ុន	លរ	អន្តរាគមន៍	ផលិតផល		អំប៊ុន
		ករណី	ចំនួនប្រាក់				ករណី	ចំនួនប្រាក់	
២	នគរបាលសណ្តាប់ធ្នាប់	34	340,000	74	១១	ផ្សារអូឬស្សី	167	1,670,000	248
៣	មន្ទីរបរិស្ថាន	46	460.000	165	១២	ផ្សារអូឡាំពិក	43	430,000	62
៤	សាលាខណ្ឌដូនពេញ	177	3,090,000	87	១៣	ផ្សារចំរើ	00	00	47
៥	សាលាខណ្ឌ៧មករា	167	1,670,000	248	១៤	ផ្សារច្បារអំពៅ	138	1,380,000	66
៦	សាលាខណ្ឌចំការមន	238	2,380,000	43	១៥	ផ្សារសាមគ្គី	12	120,000	18
៧	សាលាខណ្ឌទួលគោក	256	2,560,000	36	១៦	ផ្សារទួលទំពូង	38	380,000	43
៨	សាលាខណ្ឌមានជ័យ	666	8,010.000	54	១៧	ផ្សារបឹងកេងកង	55	550,000	47
៩	សាលាខណ្ឌឬស្សីកែវ	17	2,160,000	25		ក្នុងនោះផ្សារសរុប	335	3,350,000	531
១០	សាលាខណ្ឌដង្កោ	32	1,310,000	00					
	សរុប	1,825	23,900,000	529					

គិតត្រឹមថ្ងៃទី ៣១ ខែ ធ្នូ ឆ្នាំ ២០១០

In 2010:1825 Penalty cases / aprox. 9000 USD

In 2011:1579 Penalty cases / aprox. 7900 USD

Plastic Bags Reduction

- Local Steering committee: chaired by Governor.
- Knowledge improvement for city government staff.
- Discussion Workshop: the ways to reach the goals.
- Local Ordinance establishment
- Didactic material Production
- Evaluation Workshop:
 - Scare on fee of plastic bag
 - Changing behavior in using reuse bags.
 - Make people accepted and understand.



ពីពេលនេះតទៅ យើងមកកាន់យកការប្រើប្រាស់ថង់ប្លាស្ទិក
We together less using Plastic Bags, from now on.

ប្រើប្រាស់បានទើងដឹង គេនៅកម្ពុជា ប្រើប្រាស់ថង់ប្លាស្ទិក
I'm reusable, I born in Cambodia. Reduce Plastic Bags

ធ្វើពីសារធាតុសរីរាង្គ សំណល់ ងាយរលាយ
I made from organic matter, easy biodegradable

សូមកុំបំភ្លេច មានប្រវត្តិយូរជាងយើងទាំងអស់គ្នា
Let's think of me, I have both long history with you.

ថង់ប្លាស្ទិកមានៈ
Plastic Bags
ផលប៉ះពាល់ដល់សុខភាព
 Harmful to the people and environment
ប្រើប្រាស់បានទើងដឹង
 Reusable and biodegradable
ស្រស់ស្អាត ងាយរលាយ
 Clean and easy to decompose
ថង់ប្លាស្ទិកមានៈ
 Harmful to the people and environment



សូមកុំទទួលយកថង់ប្លាស្ទិក បើមិនចាំបាច់
Please do not accepted Plastic Bags, if unnecessary

សម្រាប់ប្រើប្រាស់៖  រដ្ឋបាលក្រុងភ្នំពេញ មន្ទីរពិសោធន៍កម្រិតខ្ពស់

ប្រើប្រាស់ប្រកបដោយប្រសិទ្ធភាព
Let's do it right

ប្រើប្រាស់ប្រកបដោយប្រសិទ្ធភាព
 Let's do it right

ប្រើប្រាស់ប្រកបដោយប្រសិទ្ធភាព
 Let's do it right

ប្រើប្រាស់ប្រកបដោយប្រសិទ្ធភាព
 Let's do it right

Didactic material

ថង់ប្លាស្ទិកមួយ ថ្លៃ ៥០០ រៀល
សំរាប់គាំពារបរិស្ថាន



ទីនេះ ជាផ្សារធំៈ
កាត់បន្ថយការប្រើប្រាស់ថង់ប្លាស្ទិក



មិនប្រើប្រាស់ថង់ប្លាស្ទិក

ការប្រើប្រាស់ថង់ប្លាស្ទិក ត្រូវបង់ប្រាក់
We have to pay, if we used Plastic Bag



Lessons Learned and Future Replication

Advantages

- Commitment/ Clear Decision of Government and City Governor.
- Good collaboration from stakeholders.
- Willingness of local authorities.
- Financial support from other sources.(JAIF/IGES)
- Private Company cooperation.
- People Participation

CHALLENGES/Barriers

- Weak of public Awareness on proper waste disposal and enforcement law implementation.
- Difficult to changing people habit on waste littering and plastic bag usage.
- Daily migrants from rural areas were limited aware on proper waste disposal and Penalty activities.
- Poor commitment of private sectors on promoting Clean environment and their company profit.
- Eco-tax not yet introduced by government policy.
- Poor understand on the risks of plastic bags.
- More organic waste, Less reduction means.
- Lack of Capacity for staff and city managers.

Future Steps

- Enhancing and Strengthen the City mechanism on Penalty and Awareness Raising.
- Extending waste segregation program into all markets schools hotels and hospitals.
- Replicating the Pilot supermarket on Plastic Bag Usage reduction to whole city.
- Looking for cooperation of schools manager for instructing pupils and student on waste littering and Plastic bags reduction.
- Looking for financial & Technical assistance for Awareness improvement and Policy establishment



**Making more places to contribute
healthier of our people,
is our dream**

Thank you very much for your attention



Different society groups involvement and participation reunited to relocate the village house to new desirable and oriented location.

CHIEK ANG, MoE Advisor, Director of DoEPP,
chiek_ang@yahoo.com