

# HONG KONG CITIES GREENBANK

Mission to accelerate investment in emissions reduction and climate resilience in Asian cities

Government backed, but independent and commercial

Highlights Hong Kong as green finance leader



# HONG KONG CITIES GREENBANK (HKCG)

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## Mission

**Accelerate investment in emissions reduction and climate resilience in cities in Asia**

- Reduce greenhouse gas emissions
- Improve resilience to future climate impacts

## Focus

**Sustainable cities** are essential to addressing climate change

- 70% of population, 70% of emissions, rapidly growing
- Increasingly vulnerable to climate events

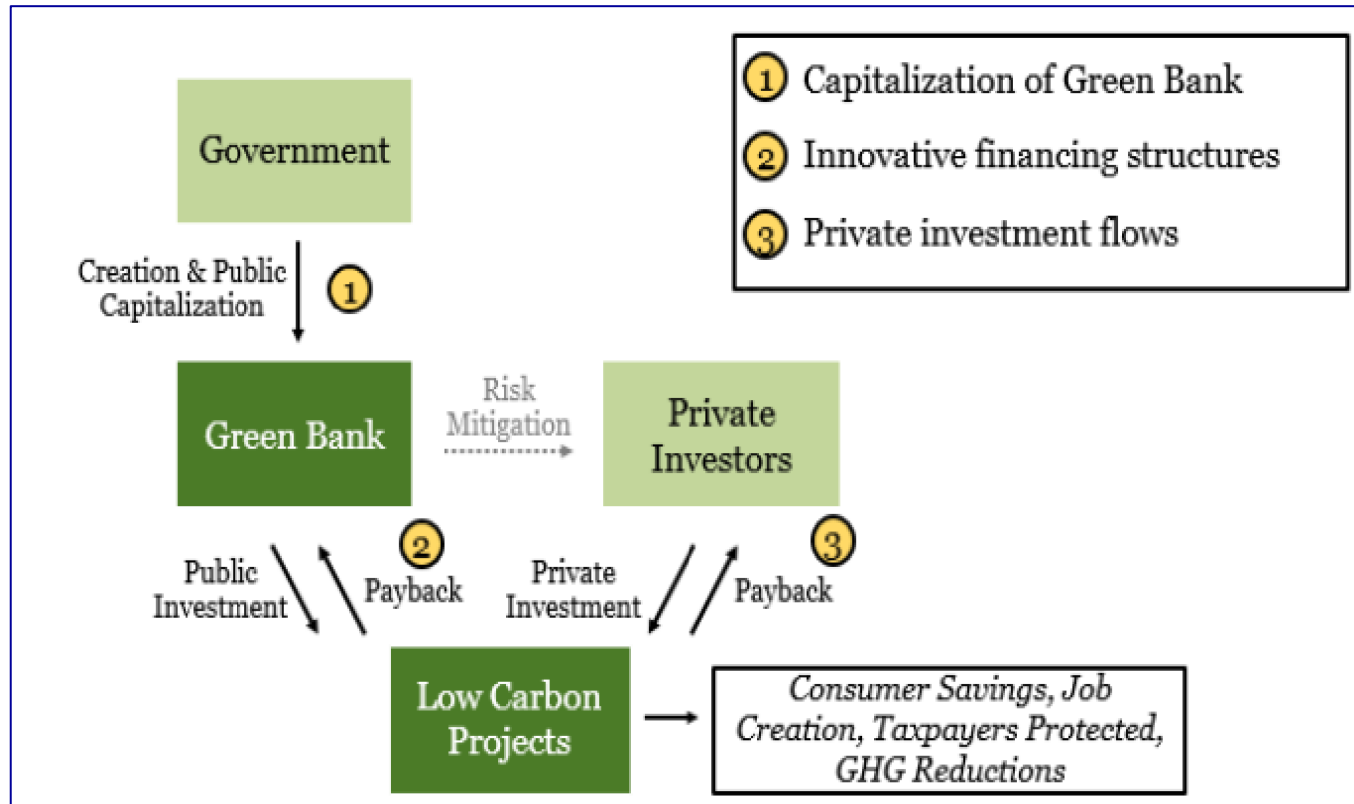
## Strategy

Build on Hong Kong's unique strengths

- Leverage capital markets and financial centre leadership
- Strengthen green finance expertise and capacity
- Replicate successful models across the region



# HOW HKCG WILL MAKE A DIFFERENCE



- HKCG will NOT provide subsidies or support non commercial deals
- Government capital is used to mobilise private investment on market terms
- Capital may be returned to government after an agreed period



# HOW HKCG WILL MAKE A DIFFERENCE

## Problems

- Lack of adequate investment volume
  - less than half of ADB projections
- Low investor/lender appetite
  - Information gaps
  - Limited track record and experience
  - Heightened risk perception
- Deal sizes
- Terms and conditions

## Solutions

- Market education and investment expertise
- Highlighting the opportunities
- Derisking instruments
  - Guarantees, first loss, credit enhancement
  - Replicating proven structures
- Pooling mechanisms for small deals
- More attractive credit terms
- **Create transaction volume and catalyse private finance**



# HOW HKCG WILL MAKE A DIFFERENCE

## Instrument

- Anchor investment
- Credit enhancement - first loss / guarantee / insurance
- Mezzanine financing
- Take on tail risk to extend loan tenor
- First loss equity
- Securitisation of smaller deals for bond issue or sale
- Warehousing of smaller deals for refinancing later

## Outcome

- Gives confidence to private investors
- Encourages banks to lend
- Secures investment grade rating for bond issue – attracting institutions
- Encourages banks to lend
- Longer tenor improves financing terms
- Encourages institutional coinvestors
- Creates investible products for institutional investors
- Enables projects to go ahead and demonstrate track record

\* HKCG's instruments and activities to be agreed upfront with government



# HOW HKCG WILL MAKE A DIFFERENCE - CITIES

## Challenges

- 2.5 billion people will move into a city by 2050
  - Cities already generate 70% of energy related carbon emissions
  - Growing with urban populations
- Poor urban planning and out dated infrastructure cause pollution and public health problems
  - Informal cities perform worst
- 90% of world's cities are coastal
  - Exposure to climate impacts
  - Wealthy cities have a lot to lose

## Opportunities

- 75% of projected 2050 urban area still not built
  - Leapfrog to climate friendly development
- High potential for improvement
  - Densely populated cities, economies of scale, cobenefits
- Huge investment opportunity
  - \$65 trillion investment in urban infrastructure by 2030 (CCFLA)
  - \$30 trillion investment in emerging cities by 2030 (IFC)



# HKCG INVESTMENT PIPELINE - SECTORS

HKCG will mobilise capital into **four key investment areas** which are essential for long term, sustainable urban development

## **Buildings**

Major source of carbon emissions in many cities

- Greener construction and development
- Retrofit/upgrade is a particular challenge

## **Transportation**

Greener mass transit and management of private vehicle fleets

- Public and commercial urban transport
- Vehicle charging infrastructure

## **Waste**

Replacement of landfill with climate smart solutions

- Recycling, waste to energy

## **Resilience**

Climate management and infrastructure upgrade

- Physical works, design and planning



# HKCG INVESTMENT PIPELINE - REGIONS

HKCG will mobilise capital inside Hong Kong and look to **replicate successful transactions** throughout the Greater Bay Area and wider region

## Hong Kong

- Government's Climate Action Plan 2030+ calls for
  - Reduction in carbon intensity of 65-75%
  - Absolute carbon emissions reduction of 26-36%

## Greater Bay Area (GBA)

- Nine cities (plus Hong Kong and Macau)
  - Population 69 million, rising to 100 million by 2030
  - Rapidly growing coastal areas exposed to climate impacts

## Emerging Asia – opportunities to be evaluated

- Potential for replication in cities in South East Asia, Belt and Road ..





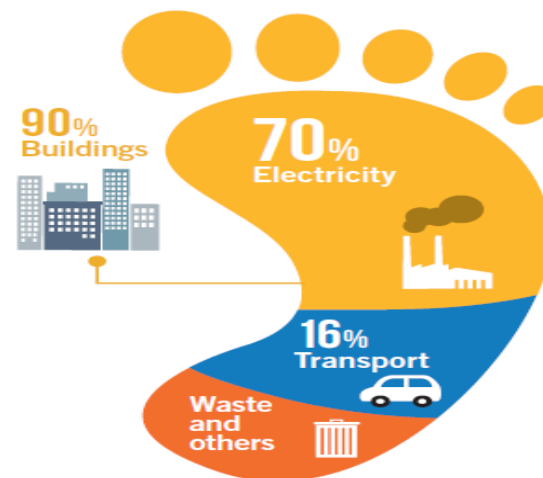
# HKCG INVESTMENT PIPELINE – HONG KONG

## Buildings

- Over 60% of carbon emissions
  - 90% of electricity usage
- Rapidly aging building stock
  - 330,000 private units over 70 years old by 2046
- Slow implementation of retrofit and upgrade
  - Concerns about reliable data
  - Multiple stakeholders
  - Little available financing

## Waste

- 6.4 million tons of waste pa
  - Food waste growing rapidly
  - Minimal recycling
  - 2/3 to landfill, no new capacity
- Landfill waste highly toxic
  - Methane emissions



# CASE STUDY - BUILDINGS

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## New York Green Bank (NYGB), United States

### Problem

- Very high electricity rates, but low rate of home energy upgrades
  - Complex process, high cost
  - Very little bank funding available

### Action

- NYGB provided debt funding to Sealed Inc to carry out home energy efficiency upgrades
  - Upfront funding to home owner, repaid out of future savings
  - Acted as billing agent for household utility bills, including upgrade cost

### Outcome

- NYGB willing to take risk of novel billing arrangement
- Enabled home upgrades, reducing carbon emissions
- Creating deal portfolio/track record for future refinancing



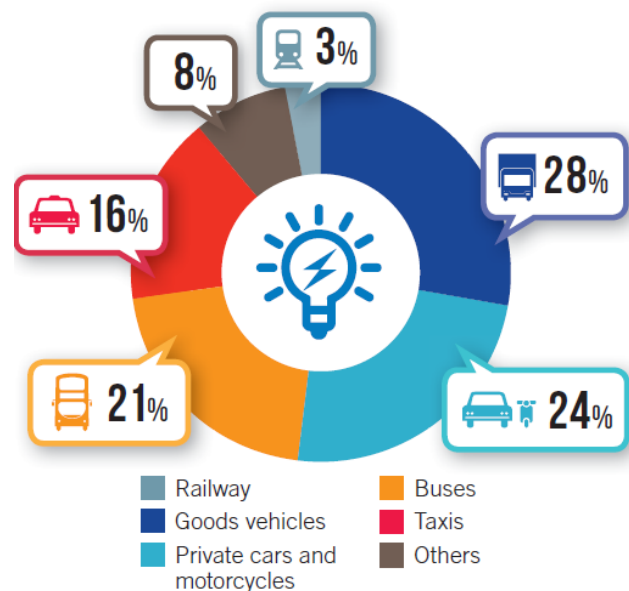
# HKCG INVESTMENT PIPELINE – HONG KONG

## Transportation

- Around 16% of carbon emissions
- Aging public/commercial vehicle stock
  - Mostly diesel or petrol fuelled
- More rapid growth in private car ownership
  - Congestion, pollution issues
- Past appetite for electric vehicles closely tied to tax incentives
- Insufficient electric vehicle charging infrastructure

## Resilience

- Local climate vulnerability
  - Flooding: typhoon, rain, storm surge
  - Higher temperatures
- Climate resilient infrastructure
  - Coastal protection, water



# CASE STUDY - TRANSPORTATION

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## Clean Energy Finance Corporation (CEFC), Australia

### Problem

- Passenger/commercial vehicles generate a significant percentage of Australian carbon emissions
- Vehicle fleet buyers not choosing low emission vehicles
  - Extra cost, lack of attractive financing

### Action

- CEFC provided A\$50m to Eclipx Group to offer lower financing to customers who invested in cleaner vehicles
  - Sale/lease terms included requirement to meet carbon emissions threshold
  - Loans held in a special purpose vehicle for future securitisation

### Outcome

- In first 18 months, Eclipx financed nearly 1,000 vehicles
- Emissions per vehicle about 30% below national average



# HKCG INVESTMENT PIPELINE – GBA

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## Buildings

Tighter energy efficiency requirements in 13th Five Year Plan

- More new construction must be green
- Wide ranging policies on building upgrade

## Transportation

Ambitious targets in GBA 2019 Outline Development Plan

- Integrated development of road, rail, ports and airports
- Huge demand for electric vehicle charging infrastructure

## Waste

State Council "zero waste" guidelines published Dec 2018

- Urban pilot projects for management and recycling

## Resilience

1990-2017, typhoons alone caused average economic losses of \$1.4bn per annum in the GBA

- Only 5% covered by insurance



# HKCG – BENEFITS FOR HONG KONG

## A Greener City

- Better energy efficiency lowers electricity costs
- Green and more efficient buildings lower carbon emissions
- Better waste management tackles pollution and carbon emissions
- Cleaner transportation networks address carbon emissions, roadside pollution and congestion
- A more resilient city can withstand sea level rise and weather impacts
- A larger pool of capital allows more green projects to go ahead

## A Leader in Green Finance

- Emphasis on expertise in green investment
- Replicating global best practice to mobilise private capital
- Improved capacity of local banks and financial institutions with green projects – creating new business opportunities
- Additional capital flowing through capital markets – potential for new debt and equity funding, attracting new investors
- Product innovation and development – opportunities for fund management, insurance industries



# MORE INFORMATION

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## EuroCham white papers

- Leading Asia's Financial Future – Hong Kong Green Investment Bank (2017)
- Driving Private Financing for Green Industries in Hong Kong – The Catalytic Role of a Green Investment Bank (2019)

## Media

- <https://www.environmental-finance.com/content/news/hong-kong-urged-to-copy-work-of-other-green-banks.html>
- <https://asianprivatebanker.com/industry/green-bank-in-hong-kong-to-catalyse-growth-green-private-investments>
- <https://www.scmp.com/business/investor-relations/article/2116759/green-investment-bank-must-hong-kong-maintain-status>
- <https://www.asiaasset.com/post/7109-greenbank-ch-nim-final-dm2510>[https://www.responsible-investor.com/home/article/at\\_hk/](https://www.responsible-investor.com/home/article/at_hk/)
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