

# Haiphong City - Vietnam becoming Green Port City

By Prof. Dr Nguyen Van Thanh – Vice Minister, Former Mayor of Haiphong



• November 2017

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1. Brief outline of Haiphong City
2. The highlights of low-carbon policies of Haiphong
3. Expectation to the Low Carbon Asia Research Network (LoCARNet)

*Prof. Dr Nguyen Van Thanh – Vice Minister,  
Former Mayor of Haiphong at Dubai City  
Summit, March 2017 for Building a World  
Smart City Model*



# **PRESENTER for Prof. Dr. Nguyen Van Thanh**

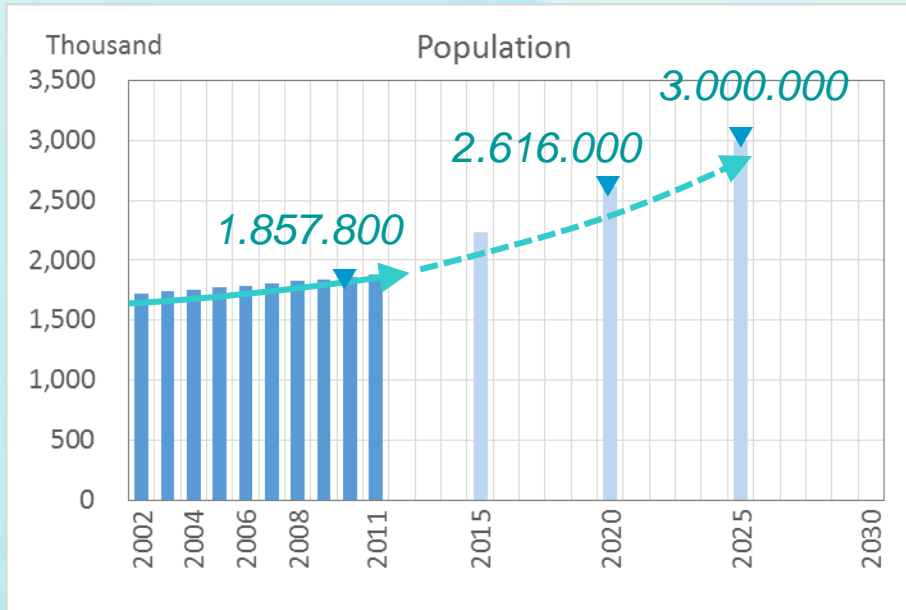
- **Mr Do Quang Hung** – Head of General Affairs Division, Haiphong People's Committee; Board Member of Haiphong City Sustainable Development Council ([ubndtphaiphong@gmail.com](mailto:ubndtphaiphong@gmail.com))
  - Play the role of coordinating, valuating city green growth schemes, prepare action plans to implement socio-economic development.
  - Coordinating City Action Plan for Implementing Prime Minister Decision No 622/QD-TTg dated 10/5/2017 on National Action Plan for 2030 Agenda for Sustainable development,
  - Supervising Green growth and Low-carbon projects in Haiphong.

# HAIPHONG CITY - STRATEGIC LOCATION

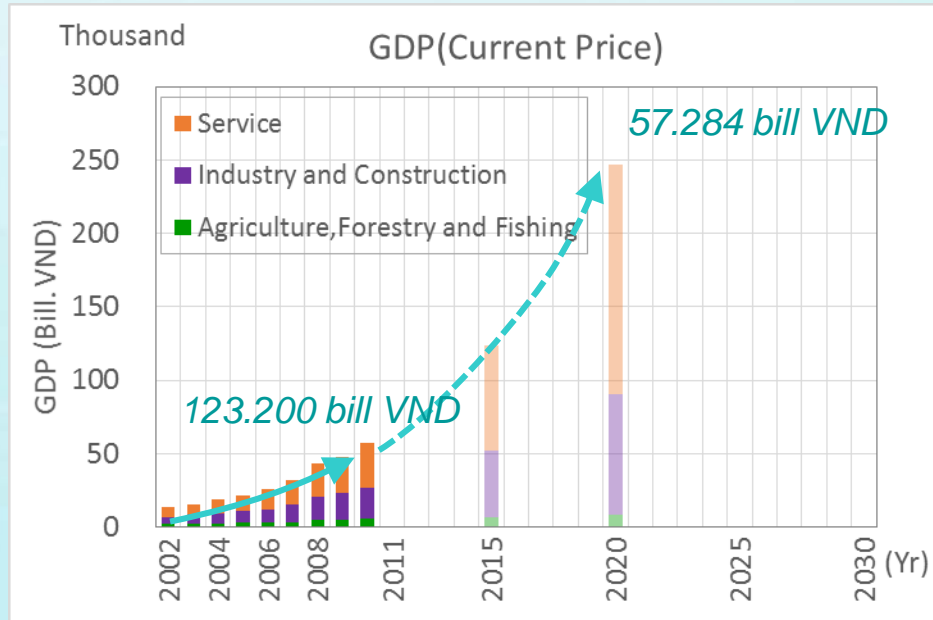
- **Located at the important point of “Two economic corridors - One economic rim” between Vietnam and China**
- **East-West Economic Corridor (EWEC): 1,450km, go through 13 provinces of 4 countries: Vietnam, Lao, Thailand and Myanmar**
- **Area: 1,519 km<sup>2</sup>, 1.97 million people, labor force: 60% of population.**
- **Estimated Socio-Economic Indicators in 2016:**
  - **GDP: USD 6,2 billion, GRDP Growth rate: 10,66%.**
  - **GDP per capita: USD 3,470.**
  - **GDP structure : Industry - Construction: 37.84%, Services: 54.53%, Agriculture -Forestry - Aquaculture: 7.63%.**
  - **Cargo throughputs: 80 million tons.**

# Haiphong City Overview

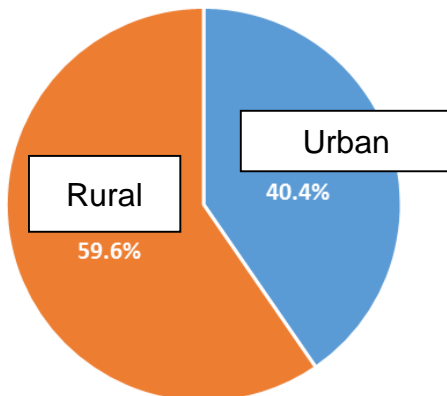
## Population



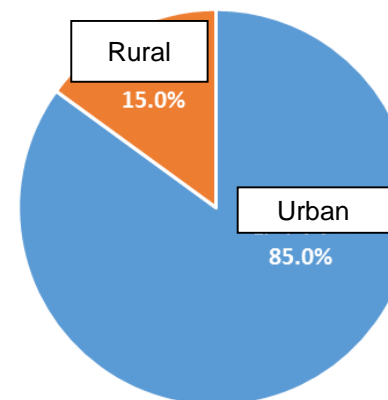
## GDP(Current price)



Population distribution 2005



Population distribution 2020



## A GREEN PORT CITY

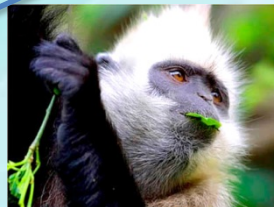
**Haiphong is the third largest city in Vietnam, and its port serves as the main gateway to Hanoi and the northern reaches of the country.** A rapidly-growing city, Haiphong has one of the lowest poverty rates in Vietnam but faces significant challenges from climate change and sea level rise. **Haiphong has undertaken to become Vietnam's first "green port city" by 2020, with a sustainable, environmentally friendly port driving economic development.** The transition to a green port city will include the movement of facilities that cause serious pollution out of residential areas and the city center, as well as a strong focus on protection of the environment. The city has focused on three key objectives in planning for a green city. The first target is to develop high value-added, energy and resource efficient economic sectors. The second is to apply technological innovations for more effective use of natural resources and reduction of greenhouse gas emissions in response to climate change. Finally, **the city intends to create jobs in green service sectors and develop green infrastructure.**

## CAT BA ARCHIPELAGO BIOSPHERE RESERVE

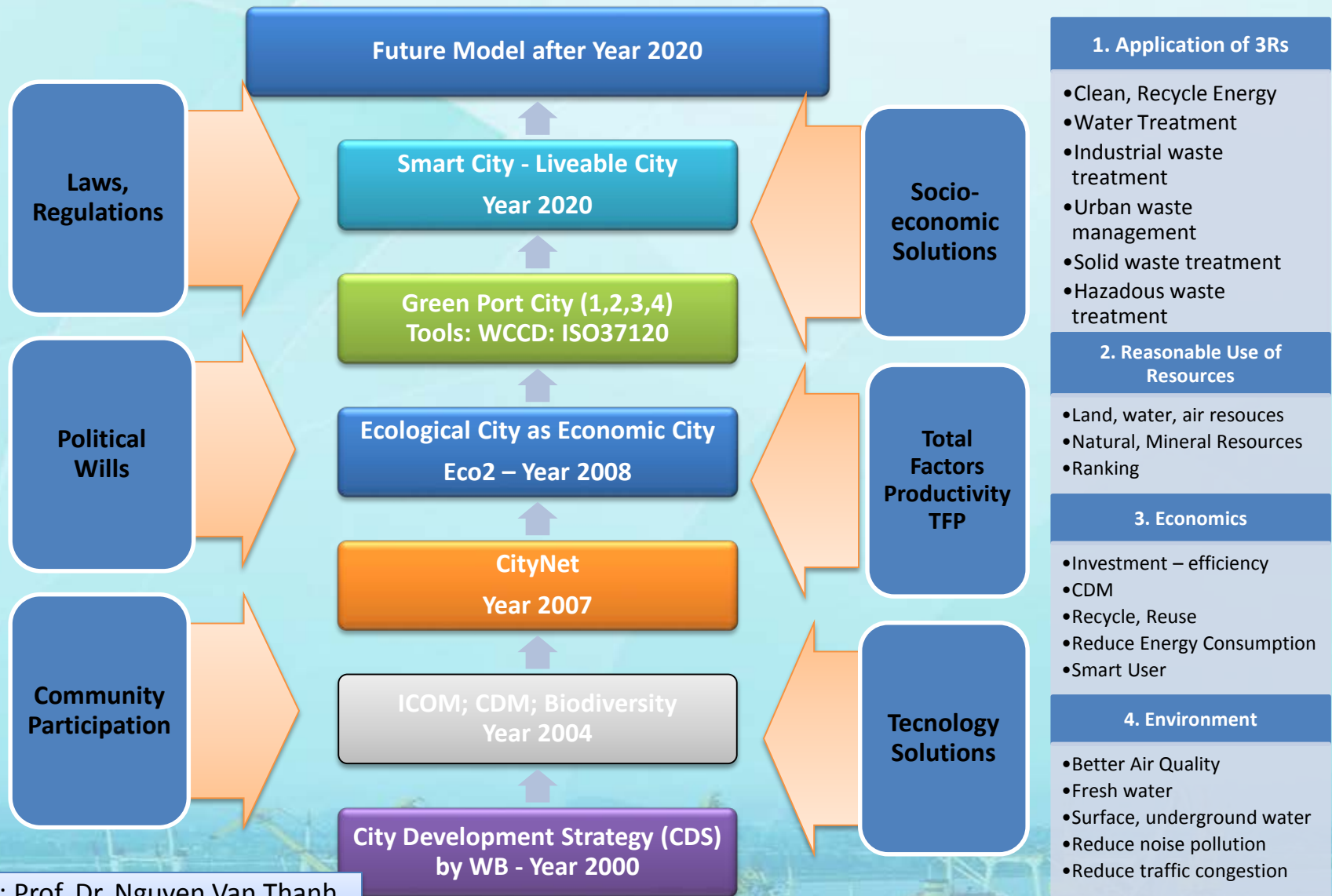
Cat Island, belonging to Haiphong City, was recognized by UNESCO on December 2, 2004 as the Cat Ba Archipelago Biosphere Reserve. The Reserve hosts a Learning Laboratory for Sustainable Development that is part of the UNESCO Global Network of Learning Laboratories for Sustainability.



# Cat Ba Island - World Biosphere Reserve



# Building Green Port City Model for Haiphong in Industry 4.0



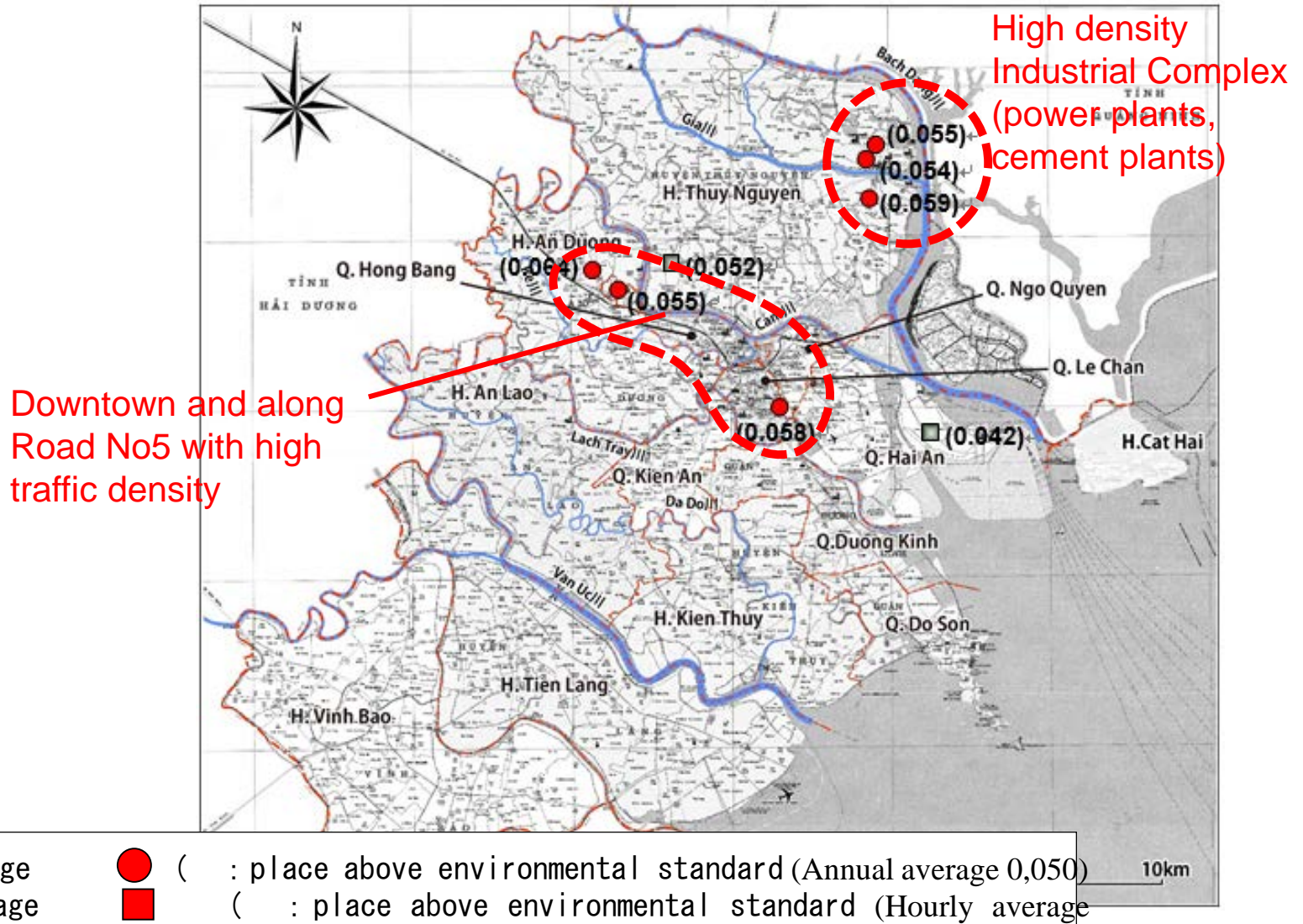
# Haiphong – Kitakyushu: “sister cities” for Low Carbon



- Hai Phong and Kitakyushu: Sister city relationship since April 2014
- Organized: 03 Workshops on Green Growth Promotion Plan of Haiphong City (in 2014, 2015); Seminar on Water Supply technology and Management (09<sup>th</sup> Oct 2015); 03 Workshops on pilot projects in the framework of Green Growth Promotion Plan of Haiphong City (04<sup>th</sup> Aug and 17<sup>th</sup> Nov 2015; 12<sup>th</sup> Jan 2016); etc.



# Air Quality Pollution



### Distribution SO<sub>2</sub> (mg/m<sup>3</sup>)(2009, 2011, 2012)

# HAIPHONG



**WCCD**

**HOW IS HAIPHONG BECOMING  
MORE SUSTAINABLE?**

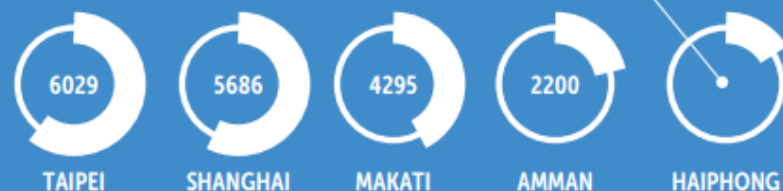
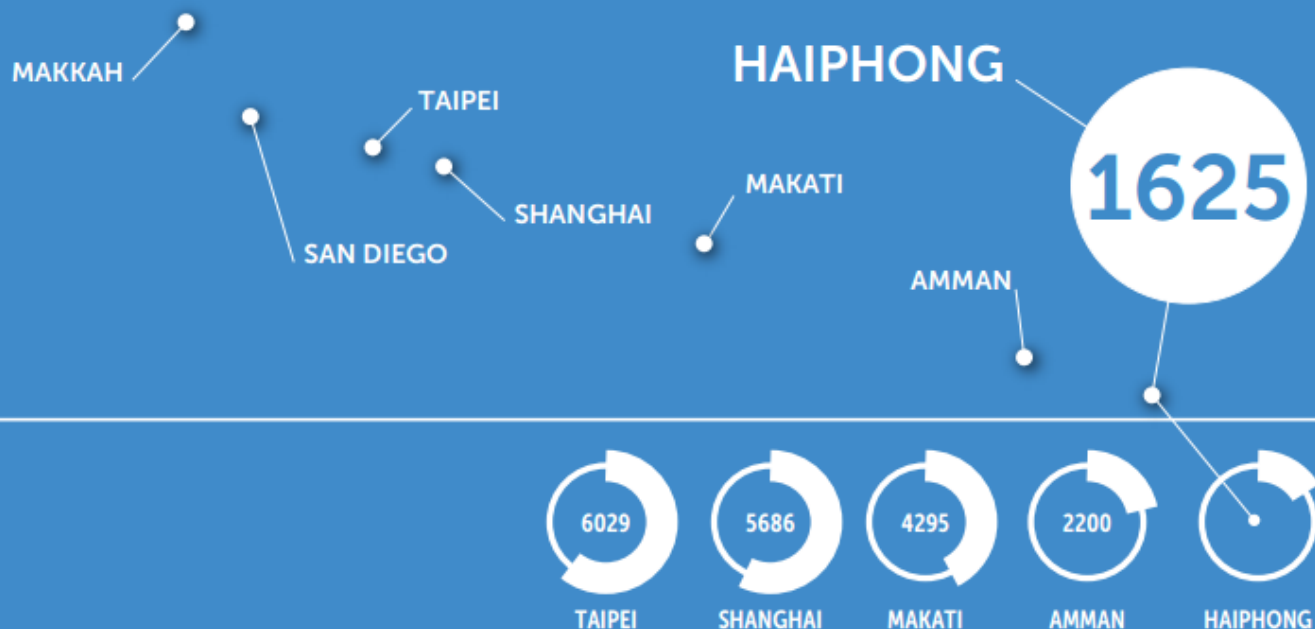
**1625 kWh/year**

**TOTAL ELECTRICAL ENERGY USE PER CAPITA**

# HAIPHONG'S LOW TOTAL ENERGY CONSUMPTION PER CAPITA - 1626 kWh/YEAR

## HOW DID HAIPHONG ACHIEVE THIS?

ISO 37120 7.5  
TOTAL ELECTRICAL  
ENERGY USE PER CAPITA  
(kWh/year)



### PLANNING FOR SUSTAINABILITY

GOAL OF BECOMING VIETNAM'S FIRST  
"GREEN PORT CITY" BY 2020

LIGHT PASSENGER PUBLIC TRANSPORT SYSTEM  
**165.9 KM / 100 000 POPULATION**

GREEN AREA  
**34 HA / 100 000 POPULATION**

WATER LOSS  
**13%**



### REDUCING DEMAND ON RESOURCES

RESIDENTIAL ELECTRICITY CONSUMPTION  
**602.96 KWH/YR/CAPITA**

SOLID WASTE  
**0.3 TONNES/CAPITA**

DOMESTIC WATER CONSUMPTION  
**100.88 LITRES/DAY/CAPITA**

## HAIPHONG'S LOW TOTAL ENERGY CONSUMPTION PER CAPITA - 1626 kWh/YEAR WHICH CONTRIBUTES TO...

**BETTER AIR QUALITY**

**A HEALTHIER AND MORE LIVABLE CITY**

**A LOWER CARBON FOOTPRINT**

**REDUCED EXPENDITURES ON ENERGY**



# HAIPHONG IN A GLOBAL CONTEXT

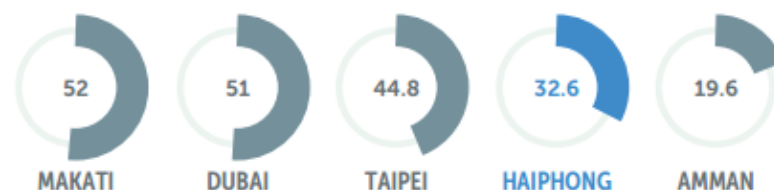
## ISO 37120 Indicator 8.3

GREENHOUSE  
GAS EMISSIONS  
(tonnes/capita)



## ISO 37120 Indicator 8.4

NO<sub>2</sub> CONCENTRATION  
( $\mu\text{g}/\text{m}^3$ )



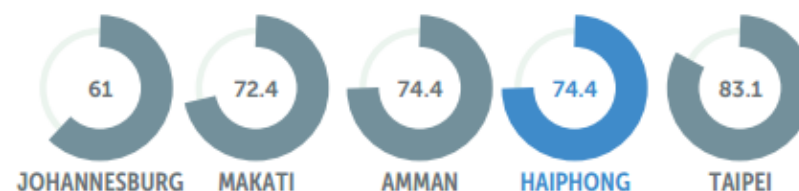
## ISO 37120 Indicator 21.5

TOTAL DOMESTIC WATER CONSUMPTION  
(per capita/litres/day)



## ISO 37120 Indicator 12.1

AVERAGE LIFE  
EXPECTANCY



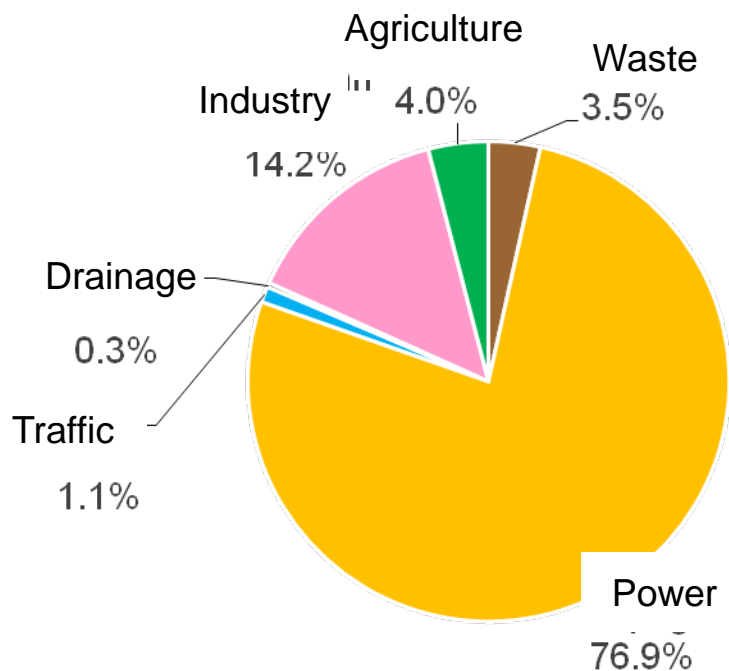
WCCD

WORLD COUNCIL  
ON CITY DATA

[www.dataforcities.org](http://www.dataforcities.org)

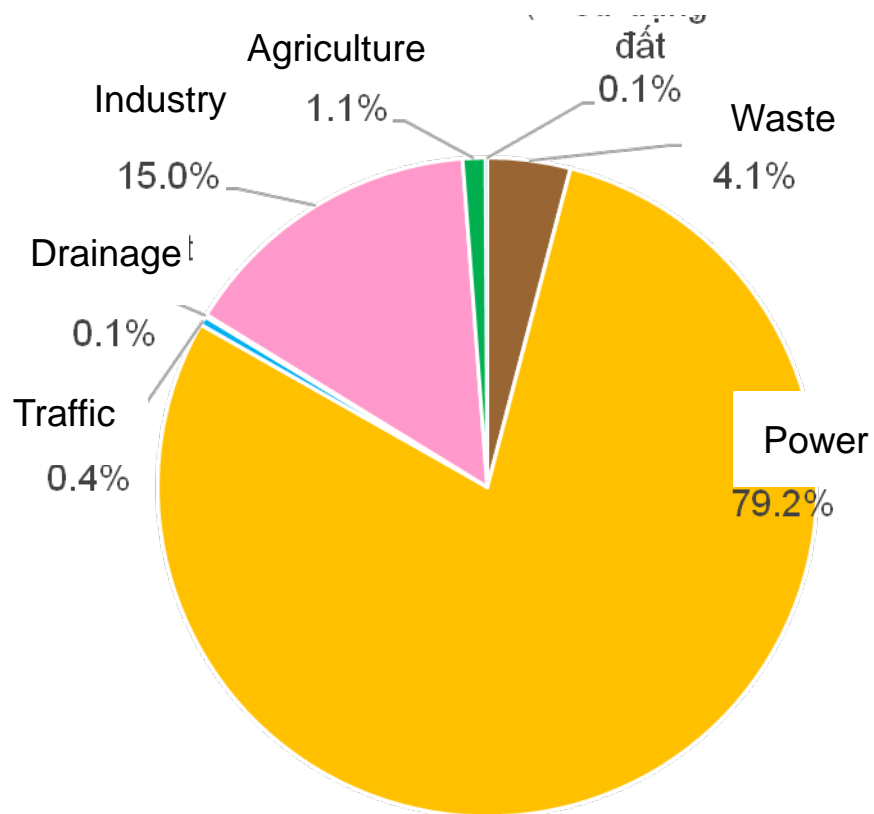
# GHG in Haiphong

GHG year 2010



**17.207.103 t-CO<sub>2</sub>**

GHG year 2020



**62.621.492 t-CO<sub>2</sub>※**

※If no action is taken

**3.7 times**

# HAIPHONG BECOMING “A SMART CITY – LOW CARBON” IN INDUSTRY 4.0

Systems Thinking Method by Prof NV Thanh

City e-Government

Green Port City – Smart City Haiphong  
Tools:  
ISO 3712X

Low Carbon City Master Plan  
ISO 37120 for Sustainable of Communities

Smart Citizens

Action Plan  
Policies  
Roles of City Stakeholders

Private Sectors/ Social Businesses

Industry 4.0 as Leverage Point



# ISO 37120 - 100 INDICATORS ACROSS 17 THEMES



Economy



Governance



Telecommunications



Education



Health



Transportation



Energy



Recreation



Urban  
Planning



Environment



Safety



Wastewater



Finance



Shelter



Water &  
Sanitation

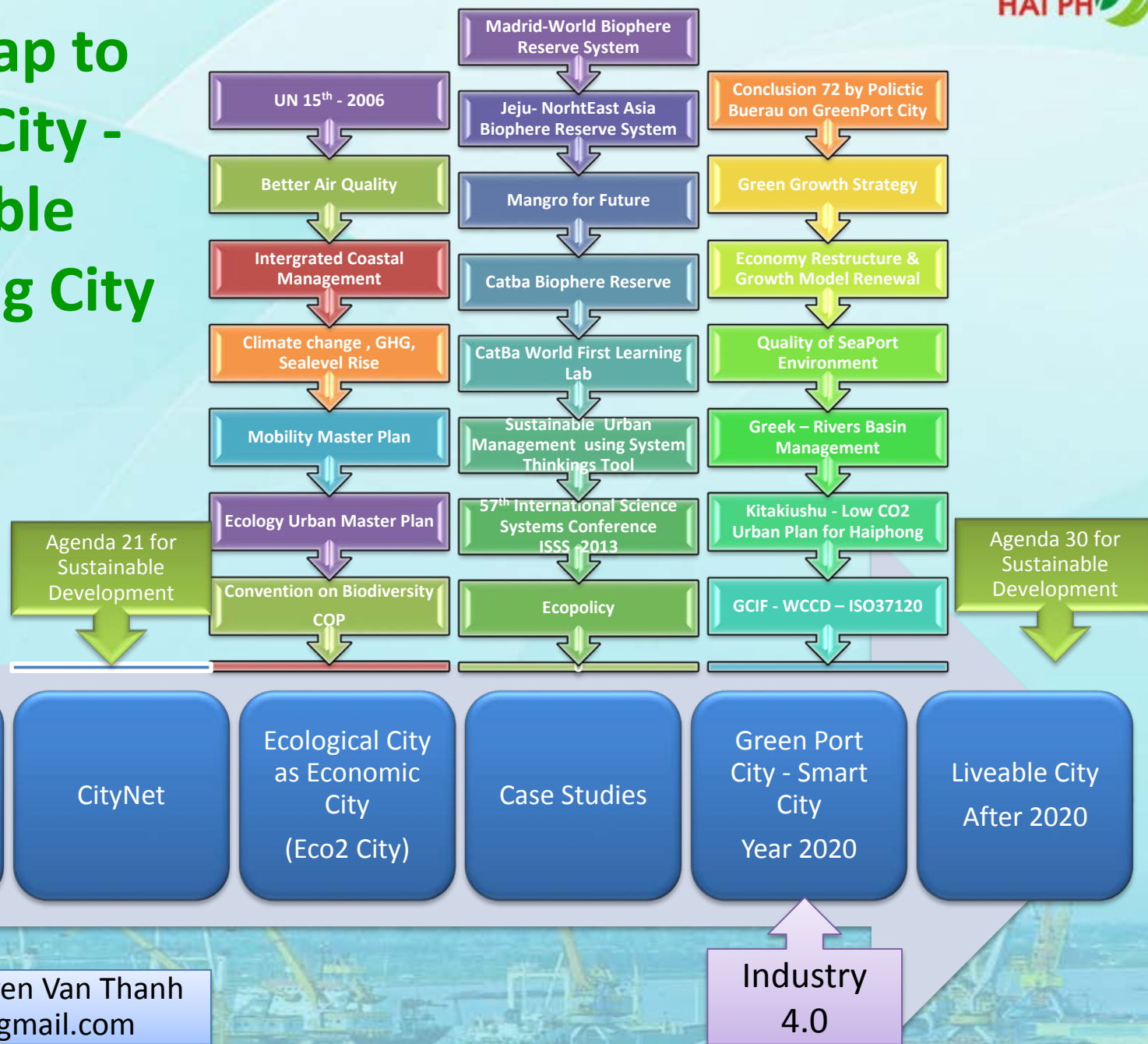


Fire & Emergency  
Response



Solid Waste

# Roadmap to Smart City - Liveable Haiphong City



# Conclusion

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## **HAIPHONG'S GREEN PORT CITY AMBITIONS, RESPONDING TO CITIZENS' SATISFACTORY INDICATORS FOR BETTER SECURITY - SOCIAL WELFARE - SAFETY.**

“As an industrial city characterised by Vietnam’s largest seaport, Haiphong City continuously looks for ways to plan for continued sustainable growth that allows us to maximise our economic output and become the world first Green port city before the year 2020.

WCCD ISO 37120 certification has provided valuable resources to inform **Green Growth policies** and to promote solutions in Haiphong City initiated by Prof. Dr. Nguyen Van Thanh since the year 2008.”

*Vice Minister - Prof. Dr. Nguyen Van Thanh,  
Former Mayor of Haiphong*

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# THANK YOU!

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Former Mayor of Haiphong City, Vietnam  
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Towards a  
**GREEN**  **economy**