



HAIPHONG (VIETNAM):

**INTERNATIONAL CITY-TO-CITY COOPERATION
TOWARDS ZERO CARBON CITIES**

November, 2022

KITAKYUSHU – HAIPHONG COOPERATION

The cooperation relationship between Haiphong and Kitakyushu was first established in 2009 and has officially become sister cities since 2014.

- Two localities have actively exchanged and coordinated in the fields of economic-sector, culture, healthcare, education and environment and have experienced different valuable joint-projects which create positive contribution to both long term direction as well as specific technical solutions for Haiphong on the way towards green growth and low carbon city.

- Within the framework of “sister-cities” relationship, Kitakyushu supported Haiphong to developed the Green Growth Promotion Plan in 2015 with 15 pilot specific projects in the areas of waste treatment, energy saving, green production, ect... .



Hai Phong Net Zero Scenario by 2050

Hai Phong Low Carbon Scenario by 2030



Based on the following strategies and plans: National Green Growth Strategy (1393/2011-TTg) approved by the Prime Minister in September 2012, Green Growth Action Plan (1003/2013-TTg) approved by the Prime Minister in March 2014, and the Green Port City strategy (17-BL/TP) of the Communist Party Politburo, Hai Phong formulated the Green Growth Strategy Action Plan of the City of Hai Phong (1443/2013-UBND) in July 2014. With the target of the Intended Nationally Determined Contributions (INDCs) to the United Nations Framework Convention on Climate Change (UNFCCC), which aims to reduce 8-20% of total emissions in 2030 compared to Business as Usual (BaU), major cities in Vietnam are required to develop Climate Change Action Plans (CCAPs). The CCAP is necessary and should be integrated with the mid- and long-term master plan of socio-economic development, specific sectoral development plans.

This study is one of the results of the research collaboration between Asian-Pacific Integrated Model (AIM) team in Japan including Ritsumeikan University, Kyoto University, E-korai, National Institute for Environmental Studies (NIES), Mizuho Information and Research Institute (MIRI), Institute for Global Environmental Strategy (IGES), and Institute of Strategy and Policy on natural resources & environment (ISPCNIES), Department of Natural Resources and Environment of Hai Phong. We expect this brochure is useful for researchers and policy-makers who are interested in developing or updating their own CCAP.

We developed two scenarios with the projection of energy consumption and CO₂ emission in energy-related categories such as Residential, Commercial, Transportation, and Industry. They are 2030BaU (Business as Usual) and 2030CCAP (Counterfactual). The 2030BaU scenario, where countermeasures for GHG emissions reduction are not introduced, reflects the situation in which both the levels of commitments to climate-friendly energy production and technological breakthroughs are relatively low. Specifically, countermeasures are assumed the same level as in 2013. On the other hand, the 2030CCAP scenario, which additional low carbon countermeasures are introduced in order to assess the reduction effects of GHG emissions. The socio-economic assumptions about population, industrial structure, and economic growth are common to both scenarios. In the relation from energy demand to energy consumption, the 2030CCAP scenario is applied for the projection of future energy consumption and CO₂ emission in energy-related categories.

Hai Phong is expected under the rapid growth of driving forces such as population, transport demand, and especially industrial activities, the total GHG emissions increase 4.21 times, from 6,675 MtCO₂e in 2013 to 28,090 MtCO₂e. The total GHG emissions reduction is 14%, accounting for MtCO₂e. Hai Phong can reduce such emissions reductions by implementing 30 projects grouped to four actions (Green Industry, Green Building, Energy Efficiency and Clean Transport). Since the national reduction target has been shown in the Green Growth Strategy (130-20P) reduction in 2030CCAP, and in the Vietnam's INDC (8-20P), Hai Phong is expected to achieve such target by 2030 (14% reduction by 2030CCAP compared to 2030BaU).

Table 1 GHG emissions by sectors (MtCO₂e) in Hai Phong city

	2013				2030			
	GHG emissions	2013	BaU	CCAP	GHG emissions	2030	BaU	CCAP
Agriculture	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Industry	2,483	27.2	15,920	47.5	14,413	30.0	6.41	0.91
Commercial	221	3.3	3,470	4.4	1,170	4.1	6.44	0.80
Residential	1,293	19.3	2,672	8.0	2,293	7.9	2.97	0.86
Passenger transport	404	9.1	1,634	4.9	1,350	4.7	2.70	0.81
Freight transport	2,075	33.1	11,797	35.2	9,626	33.4	5.69	0.82
Total GHG emissions	6,675	100.0	33,494	100.0	28,090	100.0	50.02	0.86
GHG emissions per GDP (MtCO ₂ e/bt Dong)	63.2	58.0	49.9	0.92	0.86			
GHG emissions per capita (MtCO ₂ e/person)	3.5	11.2	9.6	3.22	0.86			

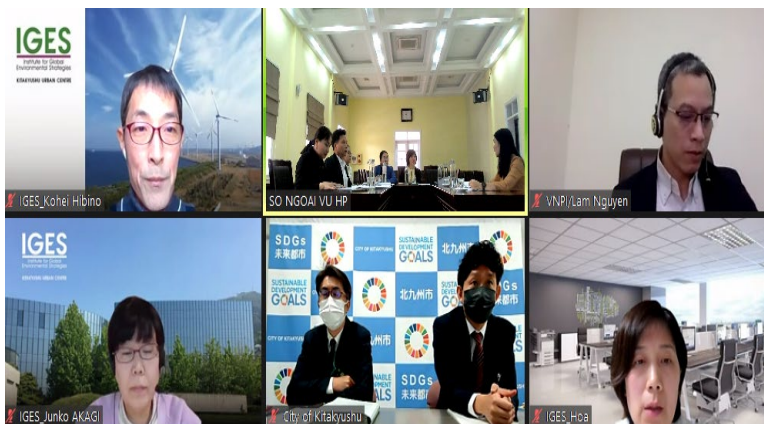
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Introducing “Hai Phong Low Carbon Scenario” at COP22

COP22 official side event
 “Promoting Low Carbon Asia for the Paris Agreement: Cases of National and Local Experience on NDC activities and market mechanisms” on 9th Nov, 2016 in Marrakesh



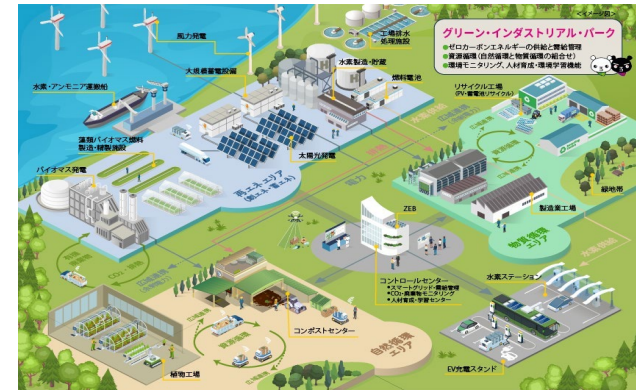
The Asia-Pacific Integrated Model (AIM) and the Institute for Global Environmental Strategies (IGES) support in updating Hai Phong Net-Zero Scenario by 2050



Promotion of Eco-Industrial Parks toward carbon neutrality in Hai Phong city

Expected outcomes:

- Implement Prime Minister Pham Minh Chinh's commitment to set a net zero emission target by 2050 at COP 26.
- Accreditation as Eco-industrial Park.
- Zero-emission industrial estates
- Decarbonization domino
- Localizing SDGs in industrial estate



Potential project to develop

Energy saving

Smart energy

Renewable energy

Energy Recovery from waste

Meetings between relevant agencies



Promotion of Eco-Industrial Parks toward carbon neutrality in Hai Phong city

August – November: Site visit to Hai Phong



WAY FORWARD

- Continue with Viet Nam's commitment at COP 26
- Cooperate with international partners towards zero carbon cities
- Work hand-in-hand with Kitakyushu to realize zero-carbon society





THANK YOU FOR YOUR ATTENTION!