BUSINESS ENVIRONMENT COUNCIL
商界環保協會

Climate Readiness of the Logistics Sector in Hong Kong

SECTOR BRIEFING

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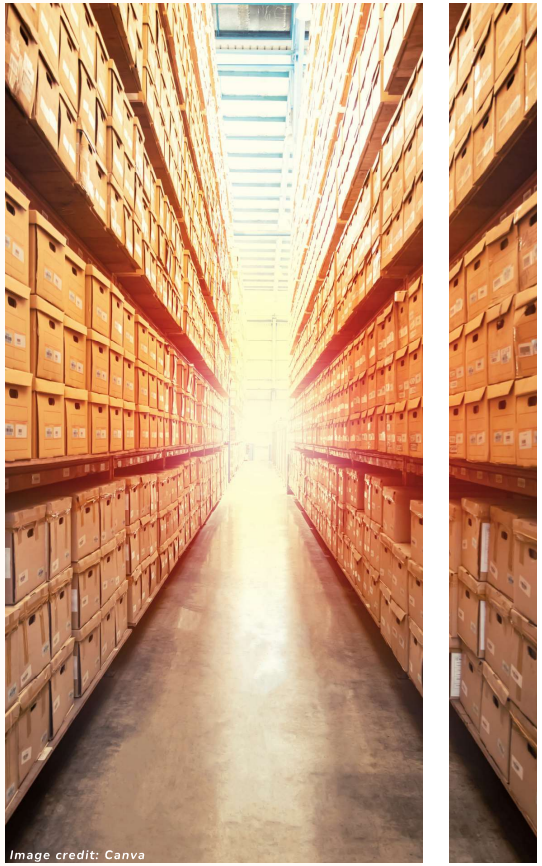

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1. Background

Business Environment Council (BEC) is supported by NWS Holdings Limited in conducting a study over the group's climate readiness for four selected sectors, namely construction, insurance, logistics, and facilities management.

The objective of this study is to comprehensively assess the level of understanding among businesses regarding the concept of net-zero. It aims to gain insights into how businesses are actively striving towards achieving net-zero goals and to understand the good practices followed by various sectors and industries in this regard. Additionally, the study aims to recognise the awareness among businesses about the global trend towards net-zero and to identify the priorities and measures that can assist them in achieving net-zero targets. By examining these points, the study seeks to provide a comprehensive understanding of the current state of businesses' efforts towards net-zero and offer valuable recommendations for achieving a sustainable and environmentally friendly future.

A comprehensive approach was adopted for this study, combining desktop research, stakeholder engagement, and expert input. It involved conducting focus group discussions with sector experts to gain an understanding of the challenges they face within the logistics sector and gain insights into their progress towards climate transition. The focus group discussed the logistics sector's response to climate change, including the level of discussion and awareness. Barriers and challenges faced by practitioners in their climate transition journey, as well as incentives for industry participation were discussed. Potential policies, support, and incentives from the government and upstream organisations to foster industry engagement were also discussed. Upon focus group discussion, an online survey was distributed to stakeholders to gather their input. This multi-faceted approach ensures a holistic understanding of the sector's climate transition progress and captures diverse perspectives from key stakeholders.

This Sector Briefing summarises the performance and challenges of the logistics sector in relation to its climate readiness, drawing on insights obtained from stakeholder engagement. It offers valuable recommendations that can support the sector in its efforts towards a sustainable and environmentally friendly future. By assessing the sector's current state, challenges and providing actionable insights, this briefing aims to contribute to the logistics industry's transition to a low-carbon economy.

2. Global Lens

Image credit: Canva

In recent decades, the world has witnessed an unprecedented awakening to the pressing need for global sustainability. The logistics industry stands as a crucial focal point due to its intricate role in the global supply chain.

Logistics, as defined by the UN Conference on Trade and Development, involves planning, implementing, managing, and controlling the flow of goods, services, and information from origin to consumption. It plays a vital role in driving economies, facilitating trade, and ensuring the availability of essential products through the movement of goods, raw materials, and resources.

The logistics industry contributes significantly to climate change. It is responsible for more than a third of global carbon dioxide (CO_2) emissions, making it the largest-emitting sector in many developed countries. International shipping, including maritime logistics, accounts for approximately 2% of global energy-related CO_2 emissions. Rail, land, and aviation are also highly carbon-intensive activities. (Sources: International Energy Agency, 2023a; International Organization for Standardization, 2023b). Of particular note, warehouses are important nodes in each supply chain and almost every industry. They account for approximately 11% of the total greenhouse gas (GHG) emissions generated by the global logistics sector. The logistics industry is prioritising emissions reduction as a key component of its sustainability efforts. Research by the Carbon Disclosure Project indicates that supply chain emissions (Scope 3) are, on average, 11.4 times higher than operational emissions (Scope 1 and/or 2). Traditionally reliant on fossil fuels, the industry has been a significant contributor to greenhouse gas emissions, leading to global warming and disruption of ecosystems. In response, stakeholders in the logistics field are reconsidering strategies and adopting cleaner energy alternatives. (Sources: Bartolini et al., 2019; CDP Global & Boston Consulting Group, 2023)

Image credit: IEEFA

One aspect of the logistics sector that will have to be deeply decarbonised is undoubtedly fuel usage, and innovation has been playing an instrumental role in reducing carbon emissions from fuels. While greener fuels (e.g., biofuels, hydrogen) today only meet around 1% of global final energy demand, decarbonising fuel will be the key to a successful climate transition in the global logistics industry (International Energy Agency, 2023a). For example, within the maritime logistics sector, a more mature, relatively greener is liquidated natural gas (LNG), with more and more companies transitioning into the fuel because of its low carbon emissions and more readily available LNG technologies. Other promising and even more sustainable choices include green hydrogen and methanol, but their popularisation is limited by expensive adoption and technological constraints. In addition, electrification is also one of the sector's climate actions. Electric vehicles, for instance, are rapidly emerging as a viable solution for reducing emissions from transportation fleets. With advancements in battery technology and charging infrastructure, electric trucks and vans are becoming more practical and cost-effective options for last-mile deliveries. Cutting-edge technologies such as electric aircraft and vessels are also emerging.

All in all, the sustainability trend in the logistics industry faces challenges as it strives to adopt cleaner technologies and practices. These challenges arise from the need to overcome upfront costs associated with implementing sustainable solutions and navigate operational complexities that may arise during the transition. However, despite these obstacles, the industry recognises the importance of embracing sustainability and is actively working towards finding innovative solutions to overcome these challenges and achieve long-term environmental benefits.

3. Hong Kong's Climate Readiness in the Logistics Sector

As the global sustainability movement gains traction, countries and cities, including Hong Kong, are also responding to the imperative of reducing their environmental impact. The logistics industry in Hong Kong, a bustling metropolis and a global financial hub, finds itself at a pivotal juncture in embracing sustainability. Situated at the crossroads of international trade and commerce, Hong Kong's logistics sector plays a significant role in the region's economic prosperity.

3.1 Current State of the Logistics Sector

As one of the four pillar industries of Hong Kong's economy, the performance data of the logistics industry speaks for itself. In 2020, the industry contributed to nearly 20% of Hong Kong's GDP (Census and Statistics Department, 2023). Hong Kong ranked as the top city with the highest amount of throughput from the airport, while the city is one of the top 10 cities with the highest amount of throughput from ports.

Image credit: HKTDC

Hong Kong, with its dense urban landscape and limited land area, faces unique logistical and environmental challenges. The demand for goods and services is high, necessitating the constant movement of freight in and out of the city. This dynamic activity has contributed to congestion, air pollution, and a considerable carbon footprint. In response, different stakeholders have begun to adopt measures that prioritise sustainability while ensuring the continuity and profitability of its operations.


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3.2 Policy Measures and Regulations

Policy measures and regulations play a crucial role in driving sustainability in Hong Kong's logistics sector. These policy measures and regulations provide a framework for sustainable development and guide logistics companies towards more eco-friendly operations.

Decarbonisation Strategies - Hong Kong's Climate Action Plan 2050

The Government has been playing a pivotal role in fostering the sustainable development of transport and logistics, and its climate goals are leading the climate transition of the logistics industry. The sustainable development and climate transition of the logistics industry are guided by the Hong Kong's Climate Action Plan 2050. In the Plan, the Government is committed to achieving carbon neutrality by 2050 and reducing carbon emissions by 55% by 2035 (Hong Kong Environmental Bureau, 2021).

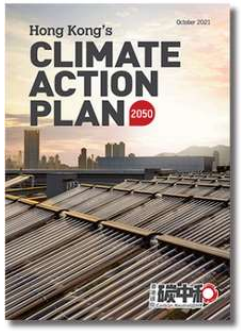


Image credit: Environment and Ecology Bureau

And among the four decarbonisation strategies proposed by the Government, green transport will be the most relevant to the logistics industry. Setting a concrete timetable for adopting new energy public transport and achieving zero carbon emissions from vehicles and the transport sector before 2050 are the medium-term and long-term goals set for the strategy respectively. To achieve these two goals, the Government is facilitating transportation electrification, the development of new energy transport and improving traffic management.

Long-term Goals and Strategies - Clean Air Plan for Hong Kong 2035 Promotion of Electric Vehicles - Hong Kong Roadmap on Popularisation of Electric Vehicles

The Clean Air Plan for Hong Kong 2035 and Hong Kong Roadmap on Popularisation of Electric Vehicles has been two other important policy instruments that guide the sustainable development of transport (Environment Bureau et al., 2021; Environmental Bureau, 2021).

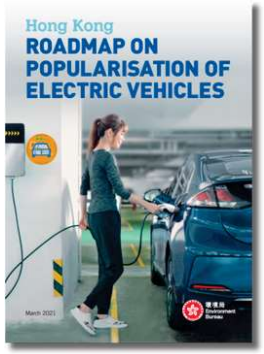


Image credit: Environment and Ecology Bureau

Some relevant policies proposed in the plans include investigating strategies for promoting the utilisation of LNG in large maritime vessels, and the potential utilisation of the recently built offshore LNG terminal by two energy firms to serve as a refuelling point for ocean-faring ships. Additionally, there are plans to designate specific areas for LNG refuelling, along with the development of technical prerequisites and associated safety rules for offshore LNG refuelling in the future.

The Government is also promoting innovative good transport solutions to advance decarbonisation, including fostering light-duty vehicle electrification and facilitating the development of electric medium- and heavy-duty good vehicles. In the recent 2024-25 Budget announced on 28 February 2024, the Government has been encouraging wider use of electric vehicles by extending the first registration tax (FRT) concessions for electric vehicles for two years (Financial Services and the Treasury Bureau, 2024).

Image credit: Liberty Insurance Hong Kong

The sustainability trend in the Hong Kong logistics industry is not only directed by the government; the governance of the industry comprises broader collaborations and partnerships. Governmental bodies are increasingly joining hands with industry players, research institutions, and non-governmental organisations to collectively address environmental challenges. Collaborative efforts often result in the development of innovative solutions, policy advocacy, and the sharing of best practices. Through such collaborations, the industry is able to leverage the collective knowledge and resources of various stakeholders to drive meaningful change.

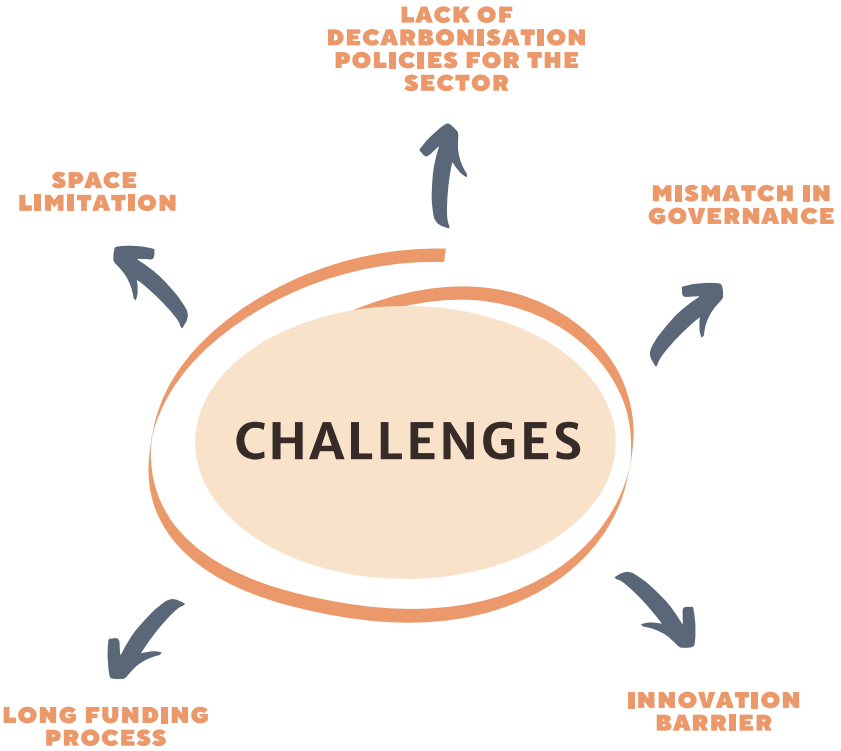
3.3 Incentives

In order to accelerate the climate transition of the logistics industry, the Hong Kong government is providing financial incentives to encourage the sector to adopt decarbonised or low-carbon vehicles to move goods. Government's support, especially financial support, is a particularly important factor in whether practitioners can successfully contribute to climate transition, as switching to cleaner vehicles will be a substantial financial burden for companies. One of the government's flagship initiatives is the first registration tax (FRT) concessions for electric vehicles (EVs). Under the concession programme, new electric commercial vehicles, including goods vehicles, can enjoy a full wavier on the FRT. Moreover, businesses that acquire electric vehicles (EVs) are eligible for a full 100% deduction in profits tax for the initial year of procurement, covering the capital expenses associated with the EVs purchases.

In addition, in order to subsidise and encourage the proliferation of new energy transport, the government also established the New Energy Transport (NET) Fund in 2011, with an initial input of 3 billion HKD into the NET Fund (previously called Pilot Green Transport Fund). The NET Fund was established with the goal of supporting the logistics industry to participate in the trial of green innovative transport technologies, and a maximum of 12 million HKD will be offered for fund applicants. In 2020, an additional 8 billion HKD has but injected into the fund to amplify its support for the NET Fund, and the scope of the NET Fund was expanded to subsidise wider adoption of products that have been proven successful under the fund when in trials.

4. Challenges

The highly carbon intensive logistics industry is under increasing pressure to act aggressively to clean up its operations. The climate transition of Hong Kong's logistics industry is marked by challenges encompass various dimensions, from operational awareness to economic considerations and governance issues. Recognising and addressing these hurdles is essential to ensure a smooth and effective transition towards a greener logistics sector.



4.1 Lack of Decarbonisation Policies for the Sector

- **Different countries in the globe have been implementing decarbonisation policies**

Countries around the world have recognised the logistics industry's significant carbon footprint and have begun implementing policies to decarbonise it. The EU aims to cut shipping emissions by half by 2050 through the inclusion of maritime emissions in the EU Emissions Trading System (ETS), the Legislative process, monitoring, reporting and verifying GHG emissions, and delivering the European Green Deal with maritime transport (European Commission, n.d.-a). Mainland China has pledged to reach peak emissions before 2030 and become carbon neutral by 2060, including through shipping electrification, renewable energy, hydrogen fuels, and optimising logistics networks. Also, the UK government has prioritised cultivating high-value-added maritime business services to strengthen London's status as a global shipping hub. In January 2019, it unveiled its Maritime 2050 strategy, representing the first comprehensive outline of governmental and industry goals for the future of the UK's maritime sector (Legislative Council Secretariat, 2022). These policies and initiatives show nations acknowledge the critical climate action role of the logistics sector. Though policies differ by region, they generally involve setting emissions targets, financial incentives, infrastructure investment, and regulating shipping and port technology adoption.

The shipping industry is exploring more ambitious goals to cut emissions significantly or even achieve zero emissions. It is noted that Hong Kong has implemented environmental laws mandating ocean-going vessels (OGVs) to use more eco-friendly fuel, whether sailing or docked since 2019. However, more decarbonisation policies need to be formulated specifically for the logistics sector, as key infrastructure, technological and cost barriers need addressing before (Legislative Council Secretariat, 2022). More ambitious commitments and coordinated international strategies are needed to transform the industry and meet climate goals.

Image credit: Maritime London

Image credit: MPA Singapore

Using Singapore as an example, it operates the world's second largest container port and biggest transhipment hub, and has set targets for a low and zero carbon future. The Singaporean government actively promotes the city-state as an international maritime hub and has set ambitious goals. By 2030, it aims for a 60% reduction in emissions compared to 2005 levels and strives for zero emissions from port operations by 2050 (Ministry of Transport, 2023). To support the maritime industry's growth, Singapore has developed comprehensive strategic plans, such as the Singapore R&D Roadmap 2030: Maritime Transformation. This roadmap outlines a clear vision and offers tax incentives to companies engaged in international maritime services, maritime support services, and ship leasing. Singapore's commitment to becoming a global maritime leader is demonstrated through its focus on strategic innovation and development (Legislative Council Secretariat, 2022).

4.2 Mismatch in Governance

- **The logistics development is led by statutory body officials lacking direct industry experience, result in a gap between policy decisions and the practical needs of the sector**

Currently, the development of logistics is primarily led by officials from statutory bodies who may lack direct industry experience. This mismatch between decision-makers and the practical needs of the sector can create a gap that hinders effective policy implementation and impedes progress in climate readiness.

The absence of industry expertise among decision-makers can limit their understanding of the complexities and nuances of the logistics sector, which is complicated and has a wide coverage. As a result, policy decisions may not fully consider the practical realities and challenges faced by logistics companies in adopting climate-friendly practices. This mismatch can lead to the implementation of policies that are disconnected from the industry's specific needs, making it difficult for companies to effectively respond to climate-related demands.

Bridging this divide requires broader engagement between government agencies, statutory bodies, and diverse industry stakeholders. A collaborative approach that leverages the expertise of both policymakers and practitioners will lead to more practical and impactful policies for enabling climate action. To effectively and equitably transition Hong Kong's logistics industry towards greater sustainability, it is crucial to bridge the gap between top-down policymaking and grassroots industry needs. This can be achieved through the implementation of practical and impactful strategies and policies that are aligned with climate goals. It is important to ensure that the burden and benefits of this transition are distributed fairly among all stakeholders, thus achieving an equitable transition. A joint effort is required to shape policies that are grounded in both climate goals and business realities.

4.3 Innovation Barrier

- **Lack of mature and economically viable green fuel alternatives is a notable concern**

The logistics industry heavily relies on fuel for transportation, including trucks, ships, and aircraft. The sector's transition to greener practices necessitates the availability of alternative fuel sources that are both environmentally friendly and economically feasible. However, the limited development and availability of mature green fuel technologies pose a barrier to achieving climate readiness in the logistics sector.

- **Current efficiency of batteries would not support the widespread electrification of transportation, especially the electrification of heavy-duty vehicles**

Battery technologies capable of providing the energy density required to power long-haul heavy-duty vehicles with zero emissions at competitive costs have still not been developed to commercial scale. Sustainable biofuels and synthetic fuels are still significantly more expensive to produce than diesel. Hydrogen fuel cells have issues with refuelling infrastructure and onboard storage space and weight requirements. Renewable natural gas and biomethane are cleaner but pipelines need to be expanded in Hong Kong. Adopting new green fuels also requires fleet operators to invest in associated fuelling networks, mechanic training, and engine retrofits or new vehicle purchases.

Unless economically competitive low-carbon alternatives for long-haul shipping and transportation emerge and gain widespread availability in the near future, it will remain a challenge for the logistics industry in Hong Kong to fully decarbonise. Considerable support is still needed to accelerate the commercialisation of clean fuel technologies.

- **High cost in transitioning into LNG or methanol for fuels**

The Hong Kong government indicated its intention to explore the use of the offshore LNG terminal as a bunkering facility for vessels, including the planning for LNG bunking areas and the formulation of technical and safety standards and requirements for offshore LNG bunkering in the new Clean Air Plan for Hong Kong 2035 (Business Environment Council, 2021). According to the high-level roadmap for LNG bunkering in Hong Kong, the first ship-to-ship LNG bunkering will be carried out in late 2024 or later.

However, it is worth noting the high cost in transitioning into LNG or methanol for fuels. LNG and methanol both require significant infrastructure investment. For example, new fuel storage tanks, pipelines, and fuelling stations need to be built to distribute LNG and methanol, which represents a major upfront capital cost for logistics companies looking to switch fuels. It took more than HK$8 billion and three years for CLP and Hong Kong Electric to build the first offshore liquified natural gas (LNG) terminal, which was launched in September 2023 (Ng, 2023). Moreover, supply and distribution of LNG and methanol at scale is still relatively undeveloped in Hong Kong compared to traditional diesel. This limited availability and higher cost of the fuels themselves makes the operating costs of switching higher.

Innovating towards sustainability in the logistics industry can be hindered by the challenges associated with developing and implementing green technologies, such as hydrogen buses, the adoption of methanol as green fuel and automated solutions. The lack of mature and economically viable green fuel alternatives is a notable concern. Moreover, the intricate nature of logistics operations often requires complex infrastructures for the integration of innovative solutions, further complicating the adoption of sustainable practices. The high costs of developing and implementing new technologies and innovations present significant challenges for logistics companies undertaking a transition journey.

4.4 Long Funding Process

- **Expand funding options to promote green transport and expand the funding regime**

The statutory body responsible for promoting green transport in Hong Kong has provided various kinds of funding options to support the transition towards environmental-friendly transportation methods, such as NET Fund and the FRT concession. However, one of the primary obstacles is the absence of streamlined funding mechanisms which contributes to the long funding process. The current process of obtaining funding for green projects can be protracted and complex, deterring companies from investing in environmentally friendly initiatives. The lengthy delays in disbursing approved funds from the statutory body may discourage some from actively pursuing greener options in a faster pace.

Moreover, increasing the availability of funding options and expanding the range of incentives will further incentivise the logistics industry to transition towards sustainable transportation methods. The main reason is that logistic companies transitioning to green transport face significant hurdles beyond just initial costs, including infrastructure limitations and the need for supportive regulatory and policy frameworks. It is necessary to further expand the funding regime and provide more incentive schemes to further advance the climate transition of the logistics industry in Hong Kong.

4.5 Space Limitation

- **Limited physical space restricts the ability to construct and expand the infrastructure needed to support the sustainable logistics practices**

Hong Kong's small geographic area and extremely high population density imposes inherent limitations on constructing and expanding infrastructure to enable sustainable logistics practices. For instance, there is scarce available land to install a comprehensive network of charging stations to support a fleet of electric delivery vehicles. Additionally, with limited space, it is challenging to develop large-scale waste management facilities needed for comprehensive waste separation and recycling programs. The lack of space for this critical green infrastructure hampers Hong Kong's ability to fully transition logistics operations to more sustainable models. Even where there is space, the high cost of real estate makes large-scale sustainable infrastructure projects prohibitively expensive.

Alternative solutions must be developed within the physical and economic constraints of Hong Kong's urban context. This may include smaller distributed charging stations, compact waste separation systems, and partnerships with mainland China for some infrastructure development. Overcoming the space limitations to support sustainable logistics requires creative solutions tailored specifically to Hong Kong's unique dense urban environment.

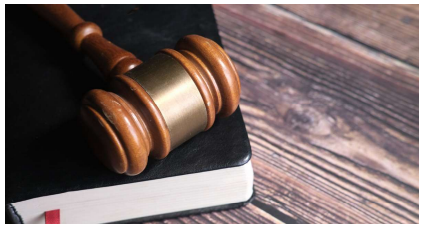
- **Hinders the establishment of warehouses that are strategically located and equipped for environmentally responsible operations**

One challenge is the scarcity of available land in Hong Kong, which limits the availability of suitable locations for warehouses. There is a need to establish strategically located and environmentally responsible warehouses in optimising the supply chain operations and reducing the sector's environmental impacts.

Moreover, promoting circular economy within the logistics sector can contribute to climate readiness. Encouraging warehouse operators to adopt practices such as waste reduction, recycling, and resource recovery can minimise the sector's environmental impact. Additionally, incentivising the use of electric or hybrid vehicles for transportation within warehouses can further reduce carbon emissions.

5. Recommendations

Looking ahead, the logistics sector in Hong Kong is poised to play a vital role in the city's climate change mitigation and adaptation efforts. As the urgency to address climate change intensifies, the logistics industry has a significant opportunity to drive innovation and sustainable practices. This transformation encompasses various key players within the sector, including logistics companies, transportation providers, and government agencies. To effectively tackle climate change, it is essential for all stakeholders in the logistics sector to collaborate and align their efforts.



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Statutory Body

Image credit: Canva

Industry Practitioners

Image credit: Canva

Joint Effort

5.1 Statutory Body

Formulate a Long-term and Strategic Development Plan

01 The statutory body should take a leadership role in Hong Kong's logistics development and formulate a long-term and strategic development plan for the industry

The statutory body should spearhead efforts to design and implement a comprehensive, forward-thinking strategic plan to foster innovation, efficiency, and expansion within Hong Kong's logistics industry over the long run. A long-term strategic development plan would allow Hong Kong's logistics providers to make critical investments in sustainable infrastructure, technology, and workforce training necessary to meet the demands of the future.

The long-term development plan should identify strategic priorities, set measurable goals, and outline policies to promote the sustainable and competitive evolution of Hong Kong into a leading global logistics hub. Drawing on the experience in Singapore, which has been the top international maritime centre in the Xinhua-Baltic International Shipping Centre Development Index since 2014, policy documents relevant to the maritime sector were issued, including the Singapore R&D Roadmap 2030: Maritime Transformation in 2019 (Singapore Maritime Institute, 2019) and the Sea Transport Industry Transformation Map 2025 in 2022 (Singapore Maritime Foundation, 2022). With the announcement of the Singapore R&D Roadmap 2030, Singapore aims to optimise R&D efforts and resources for greater value co-creation within the maritime industry. As one of the national level initiatives for Singapore, the Sea Transport Industry Transformation Map 2025 outlined a strategic blueprint for the sector to drive the industry to co-create maritime Singapore 2030 and beyond with 3 key strategies, including to strengthen connectivity and inter-linkages, drive growth through productivity enhancements and innovation as well as develop a future-ready maritime workforce by upskilling them in general areas like data analytics, cyber security, as well as in soft skills, like communication and executive leadership. By taking charge of developing such a future-oriented strategic plan for the logistics industry, the statutory body can help ensure Hong Kong solidifies its status as a world-class centre for logistics and supply chain operations.

5.1 Statutory Body

Establish a Public Body

01 Establish a dedicated statutory body

Image credit: MPA Singapore

To further strengthen Hong Kong's position as a maritime centre, it is recommended that Hong Kong establishes a new statutory body, such as a maritime port authority based on the successful model implemented in Singapore – a Maritime and Port Authority of Singapore (MPA) has been established as a dedicated port authority and the one-stop shop for all maritime commercial and strategic matters (Legislative Council Secretariat, 2022). With such dedicated statutory body in place in Hong Kong, it would have specific mandate and authority to coordinate and drive decarbonisation progress across Hong Kong's maritime and port sectors. This new agency should be staffed with industry experts possessing substantial experience across the many stakeholders involved, including shippers, port facility operators, warehouse owners, liner companies, rail carriers, aircraft operators, and more.

By creating a dedicated statutory body with specialised knowledge of the various players in the logistics supply chain, Hong Kong can institutionalise leadership on decarbonisation and sustainability initiatives, and properly address the complex dynamics between the diverse public and private entities that must work collectively to reduce emissions. The centralised coordination led by the new statutory body will allow a more strategic, efficient, and accelerated transition to low-carbon practices and technologies for maritime transport and port operations in Hong Kong.

02 Upgrade the HK Maritime and Port Board (HKMPB) to be a statutory body

Hong Kong could consider upgrading the existing Hong Kong Maritime and Port Board (HKMPB) to become a more empowered statutory organisation with expanded responsibilities, powers, staffing, and resources specifically devoted to decarbonisation. Currently, the HKMPB serves mainly as an advisor without substantial statutory authority.

By formally expanding and empowering the HKMPB with a mandate directly focused on leading decarbonisation throughout Hong Kong's maritime and port sectors, the existing body could involve decarbonisation for the logistics sector into its current key objective to drive strategic regulatory changes, incentives, infrastructure investments, pilot programs, and industry partnerships, which is also beneficial to the HKMPB's current key objectives: set the direction for the long-term development of Hong Kong's port and maritime services, foster the development of maritime manpower and devise promotion strategies and initiatives to enhance Hong Kong's status as an international maritime centre (Hong Kong Maritime and Port Board, 2023). Upgrading the status and capacity of the HKMPB, or having another independent statutory organisation in the logistics sector would be beneficial for Hong Kong to achieve its decarbonisation goals more quickly by building upon the logistics sectors' institutional maritime and port expertise.

5.2 Industry Practitioners

Boost Frontline Workers' Awareness of Sustainability

01 Address awareness gap among frontline workers

Frontline workers play a crucial role in the day-to-day operations of the logistics sector, and their behaviours can significantly impact environmental sustainability. Insufficient knowledge and awareness among frontline workers may contribute to practices such as excessive packaging and unsustainable driving during deliveries. To bridge this awareness gap, it is essential to provide comprehensive training programs tailored to the specific needs and challenges faced by frontline workers.

To ensure the effectiveness of training programs, it is crucial to involve industry experts, environmental organisations, and government agencies in their development and implementation. They can provide valuable insights, expertise, and resources to create engaging and informative training materials. Additionally, incorporating real-life case studies and success stories from within the logistics sector can help frontline workers understand the positive impact of sustainable practices and foster a sense of ownership and pride in their contribution to climate readiness.


Image credit: Bites

5.2 Industry Practitioners

Explore Innovative Strategies and Accelerate R&D

01 Develop practical business models by exploring innovative solutions

To overcome the innovation barrier within the logistics sector, it is essential to prioritise research and development efforts to accelerate the maturity and affordability of green fuel alternatives. Increased investment in research and innovation can drive the discovery and refinement of sustainable fuel technologies that are both environmentally friendly and economically viable.

Image credit: Canva

To accelerate decarbonisation and enhance sustainability, the logistics industry should actively develop and adopt innovative practical business models and solutions. Companies can explore opportunities to integrate automation, such as robotics and driverless vehicles, in order to maximise storage density and operational efficiency while reducing environmental footprints within Hong Kong's limited spaces. For example, automated vertical warehousing, multi-level storage facilities, and optimised space planning strategies enabled by technological innovations can allow logistics firms to significantly expand capacity and improve material flows without requiring additional land or infrastructure. Switching to cleaner electric vehicles or alternative lower-emission fuels for delivery fleets is another impactful model to reduce greenhouse gas emissions. Smart packaging designs and technologies that reduce material waste and enable reuse can also be deployed.

5.3 Joint Effort

Promote Green Finance

01 Encourage and provide more opportunities for green finance

To address the challenges faced by the logistics sector in climate readiness in Hong Kong, promoting green finance can play a significant role. The financial sector has the opportunity to encourage and provide more opportunities for green finance, such as green loans and green bonds, to subsidise the decarbonisation efforts of the logistics industry. Green finance mechanisms can provide financial incentives and support for logistics companies to transition towards more sustainable practices and reduce their carbon emissions.

One example of promoting green finance in the logistics sector is the issuance of the "Green Finance Implementation Guidebook - Logistics Industry" by the Hong Kong Quality Assurance Agency (HKQAA) (Hong Kong Quality Assurance Agency, 2021). This guidebook provides a framework for companies in the logistics industry to finance their businesses through green finance instruments. It enables logistics companies to access funds specifically earmarked for sustainable initiatives, allowing them to invest in technologies, infrastructure, and practices that contribute to environmental protection and combat climate change.

Image credit: Proparco

5.3 Joint Effort

Strengthen Landlord-Tenant Partnership

01 Implement educational programme for tenants and landlords to work on how green facilities can be installed in the warehouse space

To address the challenges faced by the logistics sector in climate readiness in Hong Kong, it is crucial to strengthen the partnership between landlords and tenants. For instance, through educational programs, tenants and landlords can explore opportunities to enhance the sustainability of warehouse spaces. This can include the installation of energy-efficient lighting systems, renewable energy sources, waste segregation and recycling facilities, and water-saving measures. By working together, tenants and landlords can identify suitable green solutions that align with their operational needs while minimising the environmental impact.

Furthermore, hands-on educational initiatives around effective recycling and waste diversion programs tailored for industrial facilities would allow tenants and building owners to jointly implement rigorous sorting, composting, and zero-waste practices to reduce waste sent to landfills. Programmes that award green certifications to warehouses meeting certain sustainability criteria can further spur the adoption of green building features and facility management policies. By making environmental education widely available to all players in Hong Kong's warehousing real estate sector, sustainable thinking and practices can become institutionalised and drive continuous improvements in the energy efficiency, resource conservation, and decarbonisation of this essential industrial infrastructure.

Image credit: GeeksforGeeks

6. Conclusion

Image credit: Canva

Hong Kong's strategic geographical location has enabled the industry to explore intermodal transportation solutions. Leveraging its well-connected port, the city serves as a gateway for goods entering and exiting China and the broader Asia-Pacific region.

The climate transition journey of the Hong Kong logistics industry is marked by a series of challenges that underscore the complexities of achieving sustainability. From addressing the awareness gap among frontline workers to managing the costs of adopting new technologies, and from breaking through innovation barriers to navigating governance mismatches, these challenges collectively shape the industry's path toward a more environmentally responsible future. Recognising and confronting these challenges head-on is crucial to ensuring that the logistics industry in Hong Kong successfully achieves its climate transition goals and contributes to a greener, more sustainable future.

In conclusion, the sustainability trend in the Hong Kong logistics industry exemplifies a conscientious response to the complex interplay between economic growth and environmental responsibility. The industry's significance in the global supply chain and its integral role in the region's prosperity underscore the urgency of embracing sustainable practices. Emissions reduction, intermodal transportation, technological innovation, circular economy principles, and collaborative partnerships are driving the industry's transformation. As Hong Kong's logistics sector seeks to enhance its environmental performance while maintaining its vital functions, it exemplifies how localised efforts can contribute to the global climate transition. By navigating the challenges and capitalising on opportunities, the industry can pave the way for a more sustainable and resilient future for both the region and the planet.

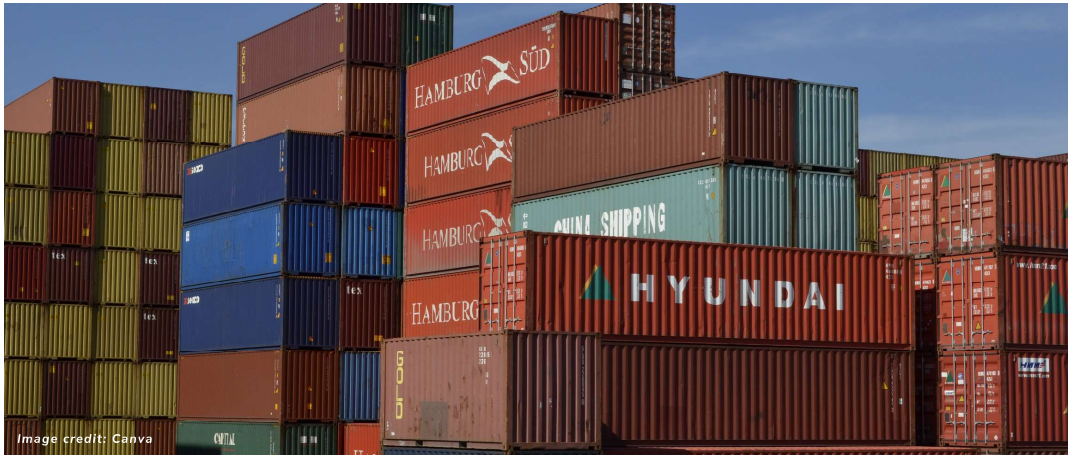

Image credit: Canva

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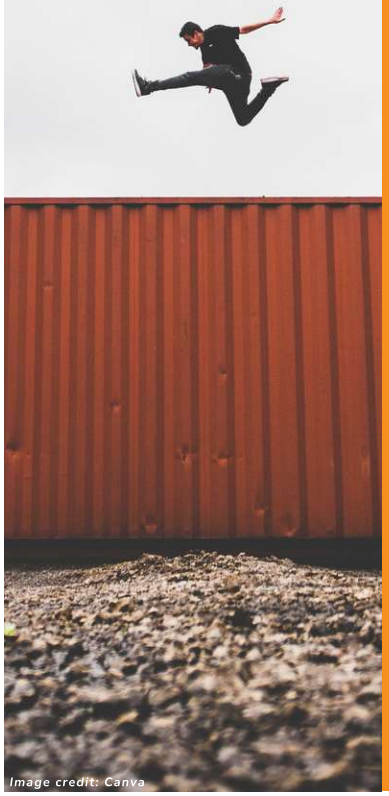

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This project is funded by:

新創建 NWS