



# Carbon Footprint Project: Environmental Performance and Energy Efficiency of Supply Chains

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Carbon Footprint Workshop  
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Kunming, China



# **OUTLINE**

- **Background of the project**
- **Progress to-date**
- **Current developments**
- **Next steps**
- **Questions**



# **CARBON FOOTPRINT PROJECT**

- **Developed following adoption of joint Action Agenda by the Transportation and Energy Ministerial Conference in 2011 in San Francisco.**
- **Aims to strengthen transportation's role in clean energy future and to advance several of the APEC priorities through collaboration between APEC Transportation Working Group and Energy Working Group.**
- **Formally launched at the 1<sup>st</sup> Carbon Footprint Workshop held during 38<sup>th</sup> TPTWG meeting in Bali, Indonesia in July 2013.**

# **SUMMARY OF PROJECT**

- The project aims to directly link emissions and energy use to transportation activities and develop a methodology to allocate emissions and energy use per cargo, per port. The methodology will be validated with data from a sample of ocean going-vessels on a specific ‘pilot’ route in the Asia-Pacific region.**
- The outcomes of the project will help improve shippers’ ability to measure vessels’ energy and emission intensity and find opportunities to improve both, thus reducing fuel costs and ultimately, contributing to improved energy efficiency in the APEC region, and the APEC aspirational goal of 45% reduction in energy intensity.**
- Given importance of maritime transportation for the APEC region, the project starts with ocean vessels, but approach could be adapted to include other transportation modes.**



## **KEY MILESTONES TO-DATE**

- **June 2013: Governance Committee established**
  - **Government officials from the U.S., Korea, Australia and China**
  - **Representative of the APEC EWG**
- **July 2013: 1<sup>st</sup> Carbon Footprint Workshop**
  - **Part of the MEG agenda**
  - **Attended by 14 APEC economies and industry associations**
- **August 2013: 1<sup>st</sup> Interim Report submitted to APEC Secretariat**
- **October 2013: Pilot route Ningbo, China - Prince Rupert, Canada to test the methodology established**
- **November 2013: Methodological approach recommended**
- **February 2014: visit of APEC officials to Port Ningbo**



# **1<sup>st</sup> CARBON FOOTPRINT WORKSHOP**

**•Comprehensive review and analysis of the project by panel of international experts, including:**

- International Chamber of Shipping**
- Australian Shipowners Association**
- Asian Shipowners' Forum**
- Maersk Line**
- Business for Social Responsibility (Clean Cargo Working Group)**

**•The presentations addressed various aspects of emissions monitoring, data collection, industry views and concerns, as well as dynamics of energy efficiency work at the IMO.**

**•Through presentations and in-depth discussions, participants reviewed existing methodologies to measure energy efficiency and carbon footprint of ocean going vessels and discussed challenges and timelines of work on allocating emissions per port, per cargo.**



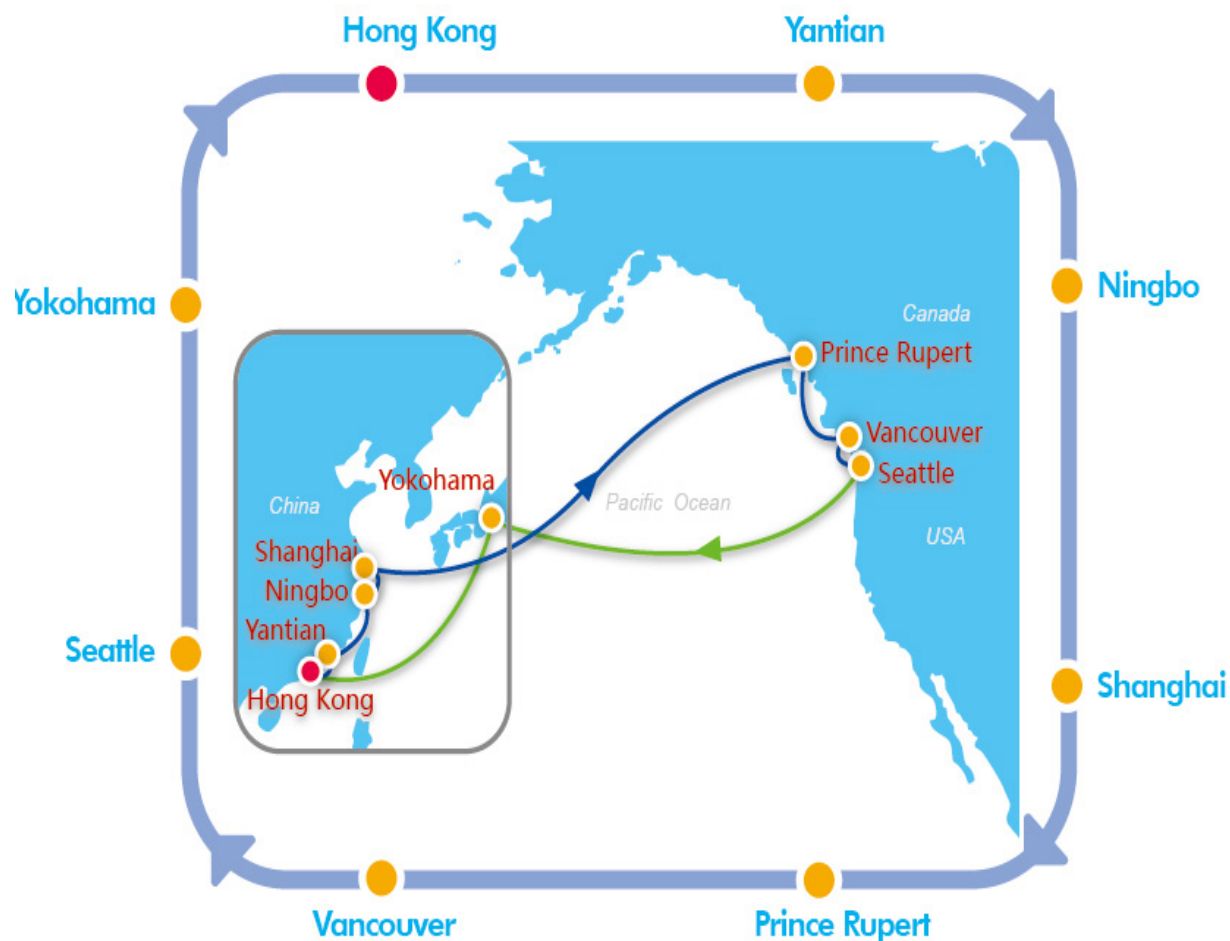
# **KEY ASPECTS OF THE METHODOLOGY**

- **Proposed methodology to allocate emissions will be:**
  - **Applicable to any marine route in the Asia-Pacific region with multiple ports on a single trip**
  - **Compatible with IMO approach (Energy Efficiency Design Index, Energy Efficiency Operating Index, Ship Energy Efficiency Management Plan)**
  - **Providing practical tool to have coherent and harmonized approach to measurement and allocation of emissions from ocean-going vessels**
  - **Latest report with details of the methodology was distributed for review and comments to MEG members in February 2014.**



**Asia-Pacific  
Economic Cooperation**

# CARBON FOOTPRINT WORKSHOP EWG-47, Kunming, China



## Port Rotation

Port	Eta	Time	Etd	Time
Hong Kong	Thu	0	Fri	1
Yantian	Fri	1	Sat	2
Ningbo	Mon	4	Mon	4
Shanghai	Tue	5	Wed	6
Prince Rupert	Sat	16	Mon	18
Vancouver	Tue	19	Wed	20
Seattle	Thu	21	Fri	22
Yokohama	Sat	37	Sat	37
Hong Kong	Thu	42		

## Transit Time (Day)

From/To	Prince Rupert	Vancouver	Seattle
Hong Kong	15	18	20
Yantian	14	17	19
Ningbo	12	15	17
Shanghai	10	13	15





Allocate CO2 emissions

Fuel Type  Fuel Mass  tonnes

Number of ports :

Distance from Origin to port  :  nautical miles

Distance from Origin to port  :  nautical miles

Distance from Origin to port  :  nautical miles

amount of cargo to port  :  TEU

amount of cargo to port  :  TEU

amount of cargo to port  :  TEU

Allocated emission to port  per cargo :  Tonne/TEU

Allocated emission to port  per cargo :  Tonne/TEU

Allocated emission to port  per cargo :  Tonne/TEU



## **2<sup>nd</sup> CARBON FOOTPRINT WORKSHOP**

- **Planned as part of the original Concept Note for the project**
- **Organized jointly by TPTWG and EWG**
- **Will address various aspects of the proposed methodology, emissions monitoring, data collection and operational experiences by participating ports**
- **All materials from today's Workshop, including Demo version of the online tool to allocate emissions, will be provided to the participants**

## NEXT STEPS

January 2014 - December 2014

- On-going testing and validation of methodology on pilot route Ningbo – Prince Rupert

July 2014

- Completed Questionnaires to be collected from APEC member economies

August 2014

- Interim monitoring Report 3 to APEC Secretariat

December 2014

- Updated online tool and Final Report



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project, please contact:**

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