



# World Ports Climate Initiative Carbon Footprinting Guidance Document

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Alliance of the Ports of Canada, the Caribbean,  
Latin America and the United States

**AAPA Harbors, Navigation and Environment  
Seminar**

**May 5, 2010**



A CLEANER PORT.  
A BRIGHTER  
FUTURE.



# Overview

- Background
- Carbon Footprinting Guidance Document Overview



# CARBON FOOTPRINTING FOR PORTS GUIDANCE DOCUMENT DRAFT



Prepared by:  
Carbon Footprint Working Group  
World Ports Climate Initiative  
Port of Los Angeles, Lead Port

AIR



# World Ports Climate Initiative

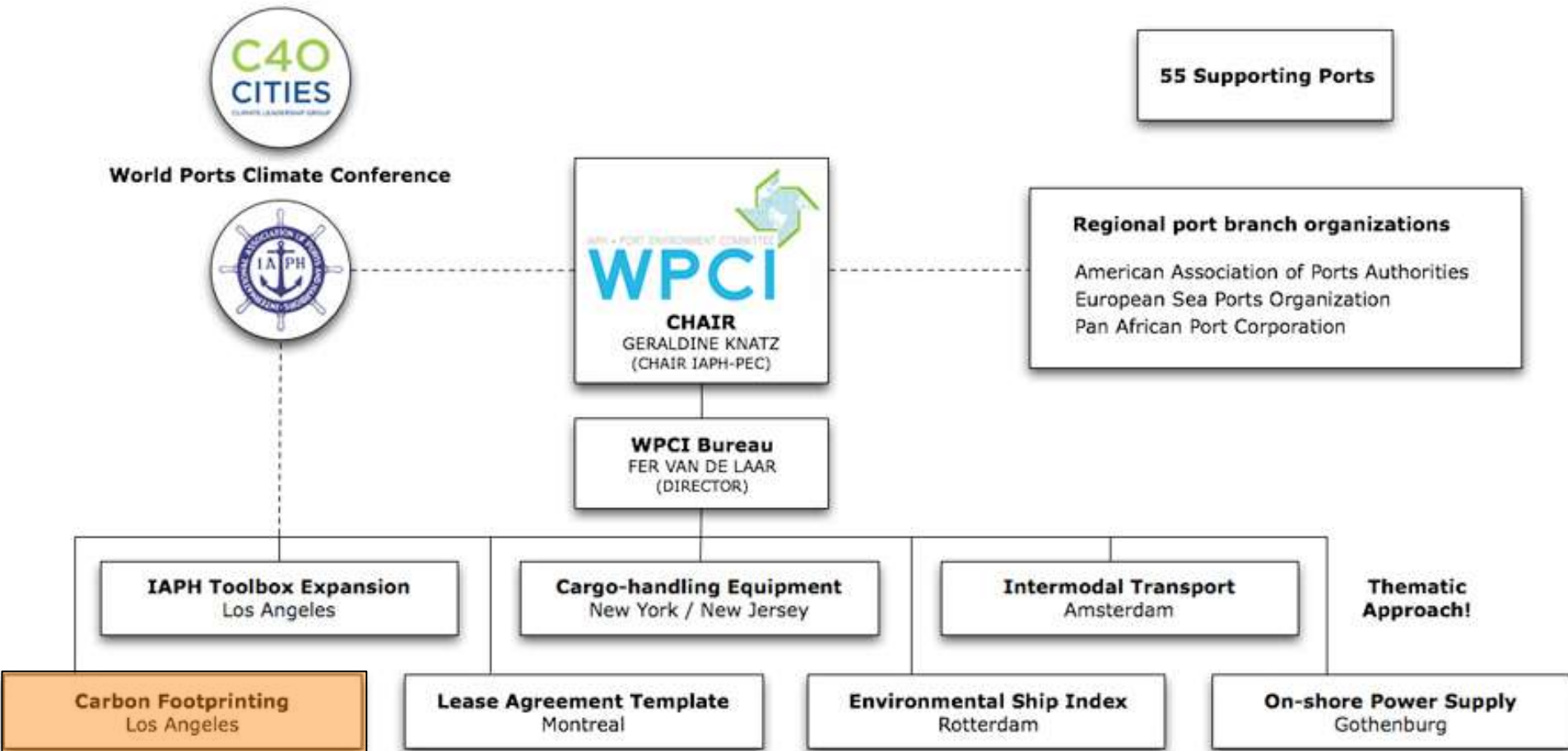
## Mission Statement

- Raise Awareness in the Port & Maritime Community of Need for Action
- Initiate Studies, Strategies, & Actions to Reduce GHG Emissions & Improve Air Quality
- Provide a Platform for the Maritime Port Sector for the Exchange of Information
- Make Available Information on the Effects of Climate Change on the Maritime Port Environment & Measures for its Mitigation



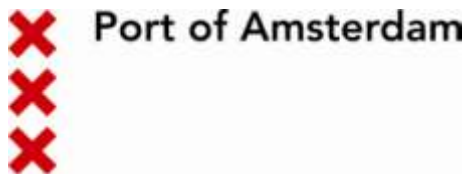
# WPCI Organization & Themes

## International Collaboration



# Carbon Footprinting Theme

## Guidance Document Workgroup Update



**THE PORT AUTHORITY** OF NY & NJ





# Carbon Footprinting Guidance Document Genesis

- Started in February at 2009 IAPH Naples Annual Meeting
- Designed to be User Friendly Guidance for Broad Range of Port Experience with Greenhouse Gases
- Monthly Meetings to Develop & Review Guidance
- Collaborative Effort
- Released at IAPH Meeting in Hamburg in November 2009
- GOAL: Create a Living, User-Friendly Document that Ports with all Levels of Carbon Footprinting Experience Can Use

# Carbon Footprinting Guidance Document

## Considerations and Approach

- What are the drivers behind developing a GHG inventory?
- What uses will be made of the information?
- Will change over time be tracked and to what resolution?
- What source categories will be covered?
- What are the geographical boundaries of the inventory?
- What level of information detail/transparency will be needed?
- What administrative/regulatory goals/policies are in place, or will need to be met?

# Carbon Footprinting Guidance Document

## Considerations and Approach

### Types of Inventories

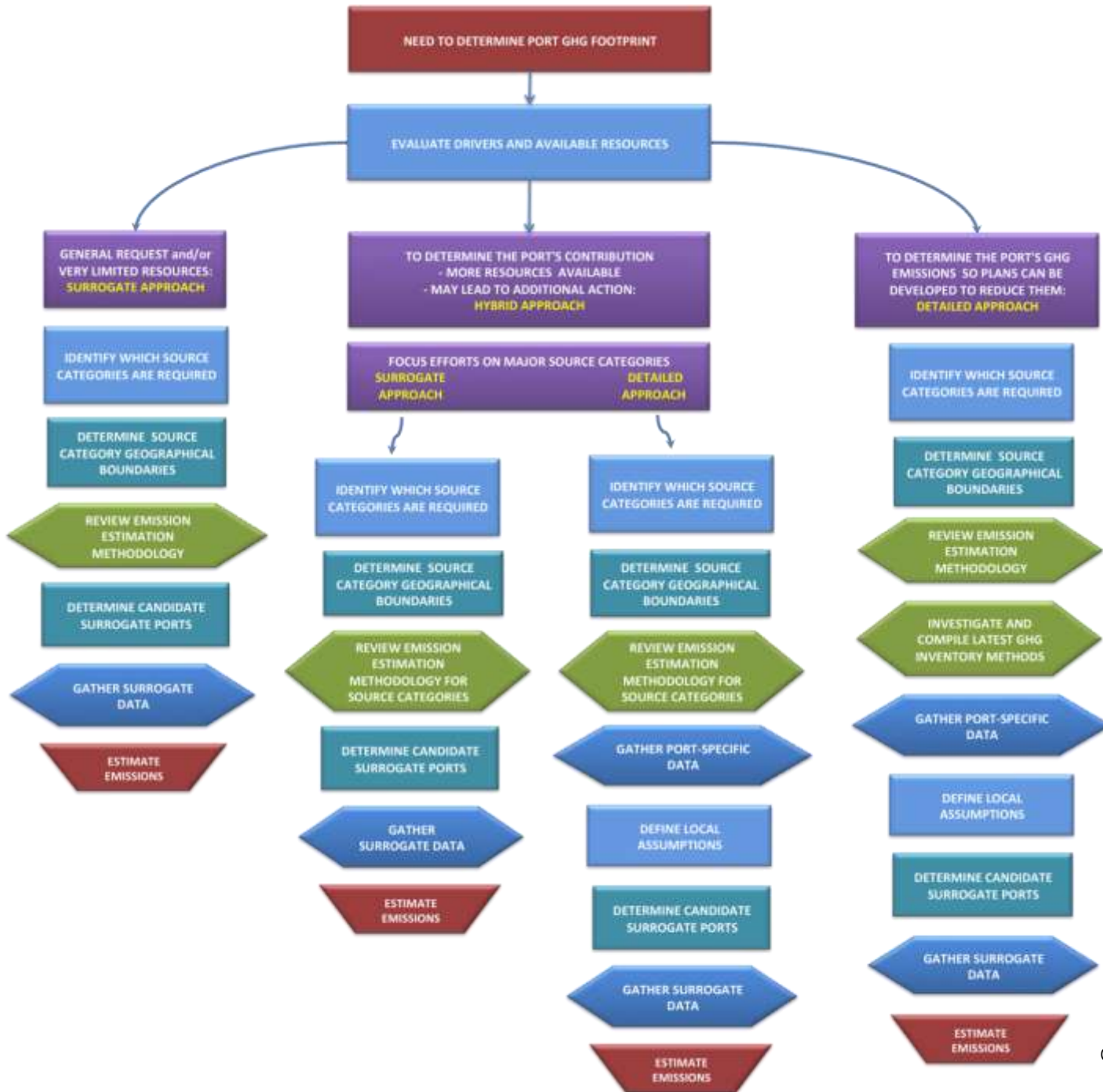
- Activity-based
- Surrogate-based
- Hybrid





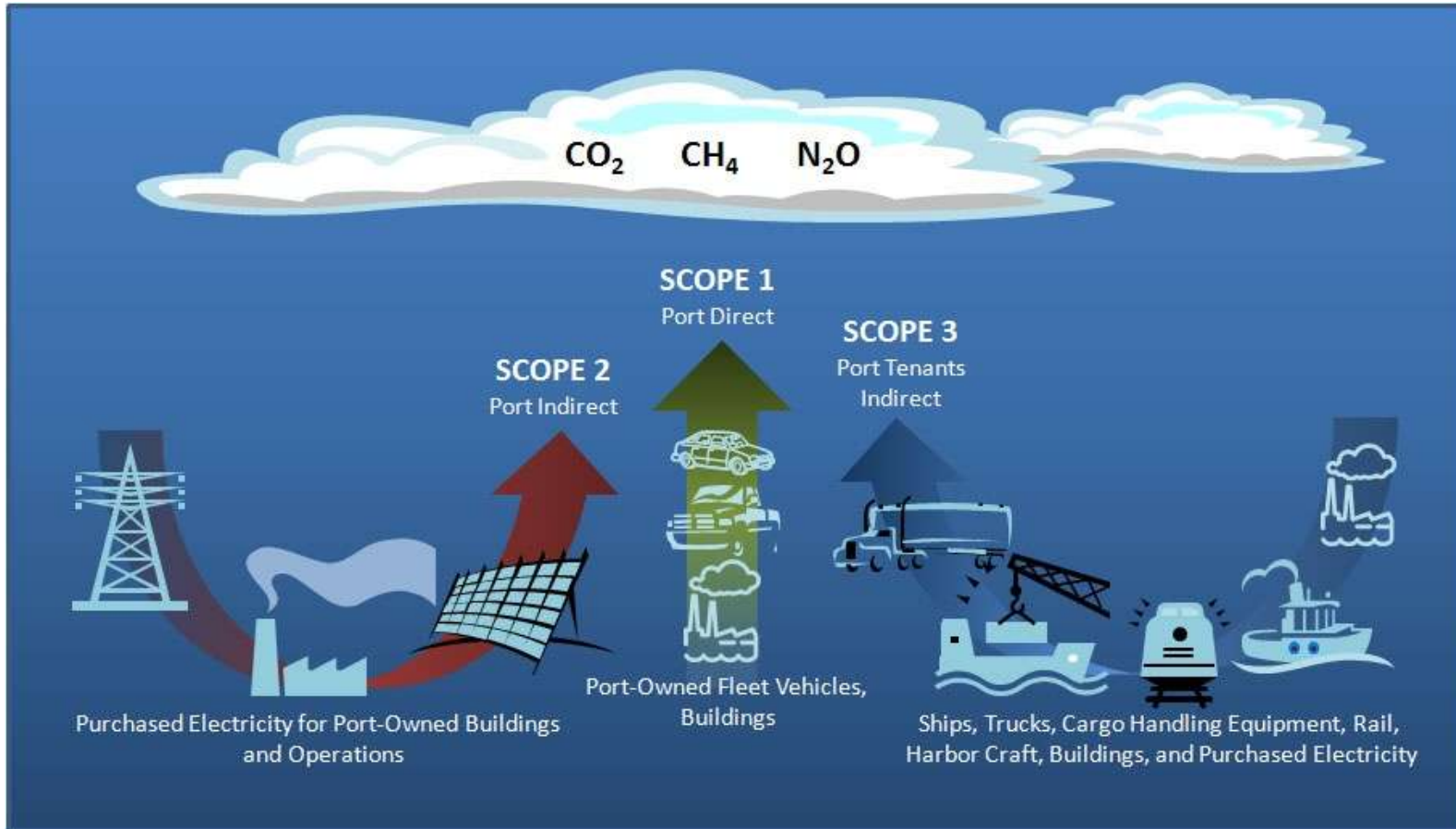


# Carbon Footprinting Workgroup Decision-Making Flow Chart



# Carbon Footprinting Workgroup

## ➤ Port-Related GHG Source Category Scopes



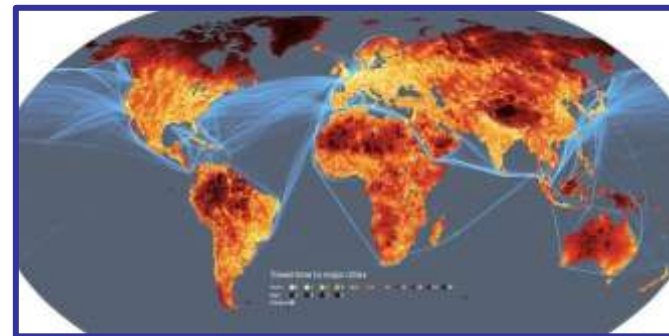


# Carbon Footprinting Guidance Document

## Comparing Footprints

Numerous Variables to Take Into Consideration when Comparing Footprints

- ✓ Geographical Boundary
- ✓ Date (time period) of Inventory
- ✓ Method/Approach Taken
- ✓ Emissions Factors & Defaults
- ✓ Level of Data Resolution & Quality Utilized
- ✓ Type of Port Operations (Landlord vs. Operational)
- ✓ Source Categories Included in Scopes 1, 2, & 3



Data may have to be normalized to meaningfully compare inventories between Ports

# Carbon Footprinting Guidance Document

## Source Categories

Emission Estimation Methods Developed for:

### ➤ Mobile Sources

- ✓ Cargo Handling Equipment
- ✓ Heavy-Duty On-Road Vehicles
- ✓ Railroad Locomotives
- ✓ Harbor Craft & Inland Waterway Vessels
- ✓ Ocean-Going Vessels
- ✓ Construction Equipment

### ➤ Stationary Sources





# Carbon Footprinting Guidance Document

## Helpful References

- Contacts at Ports with Inventory Experience
- Published International Emission and Load Factors
- Global Warming Potentials
- Emissions from Electricity Generation
- Units
- Existing Frameworks and Information Sources



### MAIN MENU

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### FOUNDING FATHER



### MAIN ARTICLE

#### Emission Control Areas Designated for North American Waters

On March 26, 2010, the International Maritime Organization (IMO) officially designated waters off North American coasts as an area in which stringent international emission standards will apply to ships. These standards will dramatically reduce air pollution from ships and deliver substantial air quality and public health benefits that extend hundreds of miles inland.  
[Read More...](#)




### MEMBERS



### NEWS DESK

#### MAY 4-6, 2010

AAPA Harbors, Navigation and Environment Seminar and GreenPort Americas 2010: Charleston, South Carolina  
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#### JUNE 7-9, 2010

IAPH Mid-Term Board Meeting in Savannah, Georgia  
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### FIND WPCI MEMBERS

Fifty-five of the world's key ports have come together in a commitment to reduce their greenhouse gas emissions.

Learn more about these [ports](#)



### SUPPORTING ORGANIZATIONS





# Carbon Footprinting Guidance Document

## Next Steps

- Continue to Incorporate Comments on Draft Document
- Continue to Work with Other Groups Interested in Carbon Footprinting at Ports
  - ClimePort
  - Carbon War Room
  - Shippers and MTOs
- Periodic Carbon Footprinting Subgroup Review & Updates
- Carbon Calculator
  - Development of a Prototype
  - Solicit Comments from the Carbon Footprinting Subgroup
  - Determine Interest and Applicability

# Contact Information

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