Leveraging Ports for Sustainable Economic Development

Michael Vanderbeek
USC Price School of Public Policy
Port of Long Beach

Southern California as a Case Study
Key Questions

What is, or should be, the proper role of ports and international goods movement in economic development?

What is the proper scope (fenceline) of economic development for individual ports?

Who bears responsibility for managing the distribution of benefits and costs related to international trade?
Presentation Outline

- Ports
- Ports + Economic Development
- Ports + Economic Development + Sustainability
Presentation Outline

Ports

Ports + Economic Development

Ports + Economic Development + Sustainability
Southern California’s Ports - LB and LA

Long Beach and Los Angeles as a single gateway
Southern California’s Ports - LB and LA
Southern California’s Ports - LB and LA

Southern California (five county) Population ~ 20 million

Ports of LB/LA Details:

- Both are public enterprise funds
- Combined land area = 26 square kilometers
- POLB formed in 1914; City of LB formed 1897
- POLA formed 1907; City of LA formed 1850
City-adjacent Port?...or...
Port-adjacent City?
Top North American Container Ports

1. Los Angeles
2. Long Beach
3. New York/New Jersey
4. Savannah
5. Vancouver (CA)
6. Oakland
7. Seattle
8. Hampton Roads
9. Houston
10. Manzanillo (MX)

10 Rankings (TEU millions)
Demand Drives the Supply Chain...

Weekly vessel calls from East Asia to U.S. West Coast
(1 line = 2 calls)

PRINCE RUPERT, 2
VANCOUVER, 16
SEATTLE-TACOMA, 16
LONG BEACH/SAN PEDRO BAY, 40

©2009 The Port of Long Beach
...but Gateway Infrastructure Steers It

A port is only as good as its access to points of production and consumption
Not Just Port Authorities

Board of Harbor Commissioners
Harbor Department Staff

- Marine Terminal Operators
- Regulatory Agencies
- ILWU Labor
- City Council/Mayor
- U.S. Customs
- Beneficial Cargo Owners
- Ocean Carriers
- U.S. Coast Guard
- Army Corp of Engineers
- California Lands Commission
- Railroads
- Trucking Companies
Presentation Outline

Ports

Ports + Economic Development

Ports + Economic Development + Sustainability
Ports of LB and LA - Economic Impacts

More than $320 billion USD worth of cargo handled in 2010

>40% of all U.S. containerized trade

>15% move across a single bridge (Gerald Desmond)

All 50 U.S. states served by Southern California ports

Known as “America’s Port”
Ports of LB and LA - Economic Impacts

Approximately 3.5 million jobs across U.S. are linked to Southern California ports

$120 billion USD in wages

$30 billion USD in State (California) and local taxes

Approximately 700,000 jobs in Southern California (five county) are linked to port activity

> 9% of all regional employment is port/trade-related

>12% of Long Beach employment is trade/port-related
What Is Economic Development?

Economic development refers to “the sustained, concerted actions of policymakers and communities that promote the standard of living and economic health of a specific area. Such actions can involve multiple areas including development of human capital, critical infrastructure, regional competitiveness, environmental sustainability, social inclusion, health, safety, literacy, and other initiatives.”

-Wikipedia
# How Do Ports Perform?

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<thead>
<tr>
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<th>Port Contribution</th>
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Presentation Outline

Ports

Ports + Economic Development

Ports + Economic Development + Sustainability
Sustainable Economic Development

Key Policy Question

How do you balance economic and other concerns in a port city/region to ensure that international trade is a sustainable, net benefit enterprise across the supply chain?

Possible Answers

By broadening the scope for evaluation of benefits and costs

By leveraging port activity to make sustainability a mechanism for economic development
Benefits vs. Costs

Benefits are well defined

- Lower-cost goods for consumers
- Better local/regional infrastructure
- And above all...jobs

Direct costs are also well defined

- A terminal costs X; a new road Y; a railyard Z

However...
Externalities Must Be Recognized

...how benefits are distributed is not so well defined and indirect costs are often poorly understood or even deliberately ignored

How many cancer deaths does LB/LA cargo contribute to annually?

What does it cost to treat port-adjacent resident asthma cases on an annual basis?

What would the value of alternative waterfront development be (opportunity costs)?

Even if costs are clear, “Who should pay” is not
Ports CANNOT address the complex issue of how benefits and costs are distributed

Ports CAN approach economic development more holistically and more progressively by leveraging their influence and operations to:

Build additional human capital in port-adjacent areas; and to

Mitigate their impacts by helping to develop and support environmentally preferable technologies
Business Attraction: LBITO

LBITO Mission

“To attract new business to the City of Long Beach and help existing businesses in the greater Long Beach area grow and prosper through international trade”

LBITO Services

Import/Export training and consultations
Trade missions with regional partners
Trade show assistance
Green Business Incubation: PortTech

PortTech Mission

“To attract and mentor companies with technologies that will enable the Port, and ports worldwide, to meet their immediate and future environmental, energy, security and logistics goals”

PortTech Services

Provide physical space for technology companies near the ports
Business and IPR mentoring, financing seminars
Provide access to angel investors and VC opportunities
Green Tech Commercialization: TAP

TAP Mission

“To accelerate the verification and commercial availability of promising new “green” port-related technologies”

TAP Goals

Encourage innovation

Demonstrate effectiveness in order to facilitate commercialization

Reduce emissions and other environmental impacts
Success Stories

Advanced Algae: Automated Photosynthetic Algae Reactor (APAR)

Consumes CO2 and NOx

Produces three grades of biofuel (biodiesel, JP8 jet fuel, agri-diesel)

“Waste” product used as fertilizer and pharmaceutical additive

www.advancedalgae.com
Success Stories

Green Wave Energy: World Light Pole

50 Watt, 4,500 lumen LED street light

Four 80 watt solar panels + wind turbine

1,200 watt maximum power and four deep-cycle batteries can power one pole for eight days without new solar or wind energy

www.greenwaveenergycorp.com
Success Stories

ACTI: Advanced Maritime Emissions Control System

Removes NOx, SOx, and Particulate Matter (PM) from auxiliary engine exhaust gases while ships are hotelling

95%-99% effectiveness in Long Beach demonstrations

www.advancedcleanup.com
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### How Should Ports Perform?

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Conclusions

Trade benefits many, impacts few

Demonstrating local benefits beyond wages is increasingly important to justify costs of development, expansion and even operations

Ports must go beyond goods movement to prove their value to local/regional stakeholders

Leveraging port influence and operations to facilitate sustainable economic development by focusing on innovative solutions that consider externalities is key
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Top Global Container Ports

Based on 2010 Rankings (TEU millions)
Top North American Container Ports

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