SHIFTING INTERNATIONAL TRADE ROUTES
Who is WorleyParsons?

People: 39,800
Offices: 160

Latin America:

<table>
<thead>
<tr>
<th>Country</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEXICO</td>
<td>COSTA RICA</td>
</tr>
<tr>
<td>COLOMBIA</td>
<td>ECUADOR</td>
</tr>
<tr>
<td>PERU</td>
<td>CHILE</td>
</tr>
<tr>
<td>ARGENTINA</td>
<td>BRAZIL</td>
</tr>
</tbody>
</table>

Countries: 49
Ports and Terminals: All continents
Corporate Goal: ZERO HARM
THE WORLD AT LARGE

BIG SHIPS AND THE CANAL EXPANSION

A NEW CANAL IN NICARAGUA?
In the short term, the economic outlooks are mixed.

<table>
<thead>
<tr>
<th>Country</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>4.6%</td>
<td>4.8%</td>
</tr>
<tr>
<td>Chile</td>
<td>4.6%</td>
<td>5.0%</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>3.7%</td>
<td>4.3%</td>
</tr>
<tr>
<td>Mexico</td>
<td>2.9%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Panamá</td>
<td>7.0%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Perú</td>
<td>5.5%</td>
<td>4.9%</td>
</tr>
<tr>
<td>USA</td>
<td>2.3%</td>
<td>3.3%</td>
</tr>
<tr>
<td>Canada</td>
<td>2.3%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Argentina</td>
<td>-0.7%</td>
<td>-1.0%</td>
</tr>
<tr>
<td>Brazil</td>
<td>1.3%</td>
<td>1.6%</td>
</tr>
<tr>
<td>Venezuela</td>
<td>-0.5%</td>
<td>-1.0%</td>
</tr>
</tbody>
</table>

Fuentes: IMF, LatinFocus, TradingEconomics, BBVA, FocusEconomics, JP Morgan, Royal Bank of Montreal, WorleyParsons
Trade’s share of the economy is still climbing.

Globalization trend is *long-term* and has not reversed or stopped.

*Source: IHS Global Insight*
World trade as a share of GDP
Growth is considerable

Trade as Share of GDP in 1990 and 2011 – Max Roser

1990
World Trade as Share of World GDP in 1990: 40%
World trade as a share of GDP. Growth is considerable.

Source: www.vox.com
World trade routes (TEUs)

○ = Pinch Points

2013
China’s New Economic Belt and Maritime Highway. A revision of the old silk road.

<table>
<thead>
<tr>
<th></th>
<th>Land</th>
<th>Marine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance</td>
<td>6000 km</td>
<td>14,600 km</td>
</tr>
</tbody>
</table>
The transport modes will be different

600 - 2010
Nearby Region Energy Projects
- Where to bunker LNG

[Map showing energy projects in the Caribbean and Central America with markers for LNG import, LNG export, LPG import, oil trans-shipment, and DME coal gas.]
THE WORLD AT LARGE

BIG SHIPS AND THE CANAL EXPANSION

A NEW CANAL IN NICARAGUA?
Larger Vessels

Panamax (1980-)
3,000 - 3,400 TEU
Panamax Max (1985-)
3,400 - 4,500 TEU

Post Panamax (1988-)
4,000 - 5,000 TEU
Post Panamax Plus (2000-)
6,000 - 8,000 TEU

New Panamax (2014-)
12,500 TEU

Post New Panamax (2006-)
15,000 TEU
Triple E (2013-)
18,000 TEU
Larger Vessels: Maersk Triple E

Already too big for the expanded Canal, which is not even ready yet.
Triple E will be the “Prius of the seas”

42% of all vessel orders are for ships >12,000 TEUs

Larger Vessels: Maersk Triple E

New shoes for:
• Guatemala
• El Salvador
• Honduras
• Nicaragua
• Costa Rica
• Panama
• Colombia
• ½ Venezuela

Even Bigger: MSC Oscar
Mitsui order: 20,000 TEU ships
Comparatively, the EEE ships are in good shape

Consume 35% less fuel than the 13,100 TEU “new Panamax” ships.

Emit less grams of CO₂ per TEU-km than other forms of transport.
The new, big containerships are for -

- Asia – North Europe 69%
- Asia – Mediterranean 19%
- Transpacific (Asia – USWC) 7%
- Asia – Mid East 5%

88%
12%

Source: Drewry
The Caribbean Transshipment Triangle is alive and well.

At capacity

PANAMA
MIT (SSA)
CRISTOBAL (PPC)
COLON (Evergreen)
BALBOA (PPC)
RODMAN (PSA)
COROZAL (???)

Building Mariel – gateway first
Moín – Limón, Costa Rica
A new modern reefer port

- $992 million by APM Terminals
- Designed for 100% domestic cargo only – but transshipment is possible
- Concession signed in August, 2011
- 1.2M TEU in Year 1 (2016-17)
- It’s all about productivity

A sub-hub transshipment point?
Another triangle is forming - Pacific

- Lazaro Cardenas
- Buenaventura
- Callao
- Caribbean
- Pacific
Shipping lines all seem to be thinking the same thing!

“Put the biggest ships possible through the expanded Canal”

In the end, it’s all about the cost!!
THE WORLD AT LARGE

BIG SHIPS AND THE CANAL EXPANSION

A NEW CANAL IN NICARAGUA?
The concession cuts across Nicaragua and gives HKND rights for 50 + 50 years.

The rights go far beyond a canal.
A huge corridor under the control of the developers

13 miles wide
“No-bid giveaway?”
1. A canal for ships transiting between the Caribbean and the Pacific Ocean.
4. A cargo railway between the 2 ports (what about the Lake?)
5. A pipeline between the oceans, transporting Venezuelan crude.
6. A Free Trade Zone on the Caribbean Coast.
7. A Free Trade Zone on the Pacific Coast.
8. An International Airport (or 2).
10. A global project to ensure the integration & management of all the projects.
HKND has been planning

- 4,000 people involved, mainly in China
- $900 million budgeted for studies and engineering
- The workforce will be 50,000
  - Nicaragua 25,000
  - China 12,500
  - Other 12,500
- 100,000 lbs of food will be needed every day to sustain the crew
- A new lake (Lago Atlanta) will be built on the Caribbean side
Companies contracted by HKND

Consultoría económica más prestigiosa del mundo

Consultora más prestigiosa en el ranking EHS Journal.

5ta firma de abogados más prestigiosa de los Estados Unidos

5ta Consultora ambiental y social, según el ranking del EHS Journal.

• Grupo de Maquinaria de Construcción Xuzhou (XCMG)
• N° 7 del sector de maquinaria de construcción de China

• Naviera China Ocean Shipping (Group) Company (COSCO);
• Líder mundial en transporte marítimo

• Marina Internacional de Contenedores de China (CIMC);
• El mayor fabricante mundial de contenedores marítimos

• Corporación Nacional de Materiales de Construcción de China (CNBM)
• Mayor grupo de la industria de materiales de construcción en China

Y...OTROS INVERISONISTAS A FUTURO AL DISPONER DE LOS ESTUDIOS DE FACTIBILIDAD

Source: HKND
What could happen if the Nicaragua Canal becomes a reality in 2020?

► “How can the Chinese get a return on their investment?”
  • Wrong question!

► The money is not in the canal
  • It’s in the associated businesses

► How will the Panama Canal react?
  • Already reacting!!
A new transshipment option in Panama?

- Lock Expansion
- Corozal
- Rodman
- Balboa
Corozal, next to the railway
New Transshipment Terminal inside the Panama Canal

Phase 1:
- 2.4M TEU

Phase 2:
- +1.5M TEU

Final: Quay 2,081 m; 27 STS; 3.9M TEU; 99 ha of CY

Layout: WorleyParsons
• Growth in Caribbean transshipment is inevitable – Pacific, too

• Nica Canal – watch out!

• It’s all about cost!

• Go for it
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