INTRODUCTION

ACT 8.630/93,

PREVIOUS PORTS LEGISLATION, BROUGHT IMPROVEMENTS SUCH AS INCREASED PRIVATE PARTICIPATION IN PUBLIC PORT TERMINAL OPERATIONS (LEASINGS) AND PROVIDED AUTHORIZATION FOR THE ESTABLISHMENT OF PRIVATE USE TERMINALS TO HANDLE ITS OWN CARGO. HOWEVER, IN ORDER TO SATISFY THE INCREASED GROWTH IN DEMAND FOR PORT SERVICES, NEW ALTERATIONS WERE REQUIRED.
Cargo handling statistics

Source: PNLP
Handling forecasts as stated in National Port Logistics Plan

Forecasts by Cargo Nature

Forecasts of Cargo Handling Growth Rates (2010-2030)

<table>
<thead>
<tr>
<th>By cargo nature</th>
<th>Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid Bulk</td>
<td>5.68% per year</td>
</tr>
<tr>
<td>Liquid bulk</td>
<td>6.81% per year</td>
</tr>
<tr>
<td>General Cargo**</td>
<td>3.37% per year</td>
</tr>
<tr>
<td>Containers</td>
<td>6.33% per year</td>
</tr>
<tr>
<td>Total</td>
<td>5.70% per year</td>
</tr>
</tbody>
</table>

**Except containers
Maritime navigation trade lane follows the globalized economy, and it is related to Eastern industrial production X Western Consumption

Global maritime routes were set by the use of large ships
Fonte: Department of Global Studies & Geography, Hofstra University
OBJECTIVES OF THE PORT REFORM

- **MAKE BRAZILIAN PORTS MORE COMPETITIVE**

- Targets:
  - Increase port efficiency in order to **reduce costs**;
  - Investment attraction in order to **increase port handling capacity** and consequently absorb growing demand.
In order to attain the proposed objectives, the port reform was structured the following way:

- A new INSTITUTIONAL FRAMEWORK which supports the proposed alterations;
- Alterations in the PORT ADMINISTRATION;
- Alterations in PORT OPERATIONS; and
- More effective Investments in PORT ACCESS (THE SECOND NATIONAL DREDGING PROGRAM – NDP II).
Act 12.815, Dated June 5th, 2013 (New Ports Act)

Revoked Acts:

- **Act 8.630/93** (Former Ports Act);
- **Act 11.610/07** (First National Dredging Program);

Altered Acts:

- **Act 10.233/01** (created ANTAQ – National Agency of Waterway Transportation – Waterways Navigation Regulator);
- **Act 10.683/03** (created SEP/PR);

Decree 7.860/2012 created the National Pilots commission;

Decree 7.861/2012 Created CONAPORTOS.
PORT INFRASTRUCTURE INVESTMENT OPPORTUNITIES

- NEW CONCESSIONS
  - 159 areas organized in 4 Groups
    - Port Efficiency
    - Goal: to reduce logistic costs in Brazil

- PRIVATE TERMINALS
  - Simplified granting proceeding
  - No limitation to third party cargo handling
  - Trade off: higher investments – lower regulation

- 2nd DREDGING NATIONAL PLAN (PND II)
  - Different contract mechanism
  - First group of 20 ports in 2014
The establishment and keeping of trade lanes depends on trustable ports draught and operational conditions – long term dredging contracts.

The most important Brazilian ports demand investments in order to make possible the safe passage of large ships, specially Post Panamax Plus class (300x43x14.5) and New Panamax class(366x49x15.2).

The dredging works demanded will be contracted on Result-based method by Secretariat for Ports (SEP/PR).
GUIDELINES FOR THE NDP II

- Result-based dredging aim to ensure the effectively of the investments

- Result-based dredging contracts may contemplate more than one port or harbor and other services like Aids to Navigation and Buoyage and Environmental monitoring in order to keep depth and navigation security conditions.

- NDP II shall consolidate Brazil as an attractive dredging market and also increase competition among companies
THE SECOND NATIONAL DREDGING PROGRAM
NDP I – RESULTS AND FIND OUTS

- **Results:**
  - About 73 million of m³ of dredged material (6.08 million of trucks);
  - **Average increase of 26% in depth** of ports waterway access.

- **Find outs**
  - The effectiveness of the program were hindered by the mismatch between the conclusion of federal dredging and local port administration investments on maintenance and on navigation security and buoyage;
  - The contractual goals, based on flat surface depth, are difficult to achieve (or verify) and some payments are canceled;
  - Companies failure on correctly acknowledge risks and analyze preliminary information given by SEP results on contractual claims (most not granted by SEP) and service interruption before final goals accomplishment.
NDP II – IMPROVEMENTS

- **Auctioning:**
  - International public procurement auctions for dredging contracts
  - Blind reserve price
  - Hybrid bid system – 1st step: closed auction with 3 winners and 2nd step: open auction with 1 winner

- **Effectiveness**
  - Package of services (deepening and maintenance dredging including access channel, turning basin, anchorage areas and *mooring berths* and security and environmental services)
  - Long term contracts – up to 10 years
  - Set of ports (more than one Port to be dredged under an unique contract)
  - Contractual goals based on bands an not on flat surface depth
NDP II – IMPROVEMENTS

• **Contract**
  - More detailed and clear clauses – specially risk allocation, dredging goals and payments conditions;
  - Clauses with explicit procedures in case of very probable events with uncertain costs, like discovery of unknown rocks and of sunk objects
  - Variable payment – efficiency

• **Transparency and Competition**
  - New contracting clauses, auctioning rules and dredging goals defined through public hearing – Port of Santos term of reference
  - Formal effort to restore dredging firms confidence on the Brazilian NDP and to bring more bidders to the public auctions
Dredging depth definition have to be set securely in order to avoid draught changes during the contract.
Work measurement and payment based upon depth band and variable reward.

- Band D – 0%
- Band C – 10%
- Band B – 50%
- Band A – 100%

The range of bands A to C is defined based on the dredging depth and the imprecision on bathymetry survey.

**Project depth**
(PIANC: Nominal channel bed level)

**Dredging depth**
(PIANC: Channel dredged level)

* Drawing without scale
## Dredging contracts main risks

<table>
<thead>
<tr>
<th>SEP (Sponsor)</th>
<th>Contractor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Force majeure and act of God</td>
<td>Equipments and dredging methodology choosing</td>
</tr>
<tr>
<td>Real costs variation below the contractual inflation index</td>
<td>Real costs variation above the contractual inflation index</td>
</tr>
<tr>
<td>Legal and regulatory and taxes change, except income tax legislation</td>
<td>Harm and losses caused to a third party (negligence)</td>
</tr>
<tr>
<td>Delays due to archaeological, indigenous, maroons and environmental</td>
<td>Over dredging (beyond the Dredging depth)</td>
</tr>
<tr>
<td>delays, when the contractor has not given cause</td>
<td></td>
</tr>
<tr>
<td>Rocks and sunk objects that <strong>CANNOT</strong> be removed without special</td>
<td>Rocks and sunk objects that <strong>CAN</strong> be removed without special equipments</td>
</tr>
<tr>
<td>equipments</td>
<td></td>
</tr>
<tr>
<td>Delay bigger than 48 hours on the schedule to liberate dredging on</td>
<td>Delay of 48 hours or less on the schedule to liberate dredging on mooring berths</td>
</tr>
<tr>
<td>mooring berths</td>
<td></td>
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</table>
## Budget Details

<table>
<thead>
<tr>
<th></th>
<th>NDP I</th>
<th>NDP II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deepening Dredging</td>
<td>R$ 1.6 billion</td>
<td>R$ 900 million</td>
</tr>
<tr>
<td>Maintenance Dredging</td>
<td>R$ 120 million</td>
<td>R$ 3.8 billion</td>
</tr>
</tbody>
</table>

*Resources provided by Ports Authority’s tariff income*
## Tender forecast for 2014

<table>
<thead>
<tr>
<th>Port</th>
<th>Dredging type</th>
<th>Volume (million of m³)</th>
<th>Highest project depth (m)</th>
<th>Term</th>
<th>Tender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santos</td>
<td>Adequacy</td>
<td>8.93</td>
<td>15.0</td>
<td>3 years</td>
<td>Tender set in February 21st 2014</td>
</tr>
<tr>
<td></td>
<td>Maintenance</td>
<td>13.20</td>
<td>15.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mucuripe</td>
<td>Adequacy</td>
<td>1.10</td>
<td>14.0</td>
<td>6 months</td>
<td>Tender set in March 13rd 2014</td>
</tr>
<tr>
<td>Rio de Janeiro</td>
<td>Deepening and Adequacy</td>
<td>2.73</td>
<td>15.0</td>
<td>1 year</td>
<td>April 2014</td>
</tr>
<tr>
<td>Rio Grande</td>
<td>Adequacy and Maintenance</td>
<td>33.00</td>
<td>18.0</td>
<td>3 years</td>
<td>May 2014</td>
</tr>
<tr>
<td>Paranaguá</td>
<td>Deepening and Maintenance</td>
<td>11.03</td>
<td>16.0</td>
<td>3 years</td>
<td>June 2014</td>
</tr>
<tr>
<td>Cabelo e Maceió</td>
<td>Deepening</td>
<td>5.40</td>
<td>12.5 e 12.5</td>
<td>1 year and a half</td>
<td>July 2014</td>
</tr>
<tr>
<td>Niterói and S. Gonçalo</td>
<td>Deepening and Adequacy</td>
<td>5.50</td>
<td>11.0</td>
<td>1 year and a half</td>
<td>August 2014</td>
</tr>
<tr>
<td>Itaguaí, Vitória, Salvador and Maceió</td>
<td>Maintenance</td>
<td>6.00</td>
<td>21.0; 14.0; 14.0 e 12.5</td>
<td>4 years</td>
<td>October 2014</td>
</tr>
<tr>
<td>Recife, Suape, Cabelo, Natal and Mucuripe</td>
<td>Maintenance</td>
<td>9.00</td>
<td>11.5; 20.0; 12.5; 12.5; e 14.0</td>
<td>4 years</td>
<td>November 2014</td>
</tr>
<tr>
<td>Itajaí, São Francisco do Sul e Imbituba</td>
<td>Adequacy e Maintenance</td>
<td>8.10</td>
<td>14.0; 14.0 e17.0</td>
<td>4 years</td>
<td>December 2014</td>
</tr>
<tr>
<td>Suape</td>
<td>Deepening</td>
<td>1.00</td>
<td>20.0</td>
<td>1 year</td>
<td>December 2014</td>
</tr>
</tbody>
</table>
DESCRIPTION: Maintenance dredging for 3 year, sedimentation of about 6,600,000 m³ per year and buoyage.

- Depth goal: 15.0m
- Expected volume of dredging:
  - Deepening and adequacy: 8.93 million of m³
  - Maintenance: 6.6 million of m³ per year

- Date of tender warning: February 2014
- Date of bid submission: April 2014
DESCRIPTION: Adequacy dredging of passenger terminal approach channel and turning basin.

- Depth goal: 14.0m
- Expected volume of dredging:
  - Adequacy: 1.10 million of m³
- Date of tender warning: March 2014
- Date of bid submission: April 2014
DESCRIPTION: Capital dredging and adequacy of access channel to Caju Quaywall.

- Depth goal: 15.0 m
- Expected volume of dredging:
  - Deepening and Adequacy: 2.73 million of m³
- Date of tender warning: April 2014
- Date of bid submission: June 2014
DESCRIPTION: Maintenance dredging for 3 years, sedimentation estimated in 8,000,000 m³ per year and Buoyage.

- Depth goal: 18.0 m
- Expected volume of dredging:
  - Adequacy and Maintenance: 33.0 million of m³
- Date of tender warning: May 2014
- Date of bid submission: July 2014
Port of Paranaguá

**DESCRIPTION:** Capital dredging in access channel and harbour basin – Alpha, Bravo1 and Bravo 2 areas, Maintenance for 3 years, with sedimentation estimated in 2,600,000 m³ per year and buoyage.

- Depth goal: 16.0 m
- Expected volume of dredging:
  - Deepening and Maintenance: 11.03 million of m³
- Date of tender warning: June 2014
- Date of bid submission: August 2014
**DESCRIPTION:** Capital dredging of access channel and harbour basin.

- Depth goal: 12.5 m
- Expected volume of dredging:
  - Deepening: 5.40 million m³
- Date of tender warning: July de 2014
- Date of bid submission: September 2014
Ports of Niterói and São Gonçalo

DESCRIPTION: Capital dredging and Adequacy of access channel and harbour basin.

- Depth goal: 11.0 m
- Expected volume of dredging:
  - Deepening and Adequacy: 5.50 million of m³
- Date of tender warning: August 2014
- Date of bid submission: October 2014
Ports of Itaguaí, Vitória, Salvador and Maceió

**DESCRIPTION** : Maintenance dredging for 4 years of access channel and turning basin.

- Depth goal: 21.0 m, 14.0 m, 14.0 m e 12.5 m.
- Expected volume of dredging:
  - Maintenance: 6.00 million of m³
- Date of tender warning: October 2014
- Date of bid submission: December 2014
Ports of Recife, Suape, Cabedelo, Natal and Mucuripe

**DESCRIPTION**: Maintenance dredging for 4 years in access channel and turning basin.
- Depth goal: 11.5 m, 20.0 m, 12.5 m, 12.5 m and 14.0 m.
- Expected volume of dredging:
  - Maintenance: 9.00 million of m³
- Date of tender warning: November 2014
- Date of bid submission: January 2015
Ports of Itajaí, São Francisco do Sul and Imbituba

**DESCRIPTION** : Adequacy and Maintenance dredging for 4 years in access channel and turning basin.

- Depth goal: 14.0 m, 14.0 m e 17.0 m.
- Expected volume of dredging:
  - Adequacy and Maintenance: 8.10 million of m³
- Date of tender warning: December 2014
- Date of bid submission: February 2015
DESCRIPTION: Capital dredging of waterway access channel to Port of SUAPE, from -15.0m to -20.0m.

- Depth goal: 20 m.
- Expected volume of dredging:
  - Deepen: 1.0 million of m³
- Date of tender warning: December 2014
- Date for bid submission: February 2015