GIS&T for Transportation and Logistics

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Enhancing Latin American GIS&T Capacity for Innovation and Economic Development
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Content

- Rationale for Panama as The Premier Trade Hub of the Americas
  - Panama’s Potential as a Trade Hub
  - Panama-Singapore Comparison
  - Panama’s Logistics Performance

- Closing the Logistics Performance Gap

- Georgia Tech Panama Logistics Innovation and Research Center

- National Logistics Council

- A Continuous Improvement Model

- Final Remarks
Panama’s Potential – Trade Hub for the Americas
Panama Compared to Singapore

- **Singapore**
  - #4 relative to trade routes
  - Trade growth U.S. and Asia
  - #2 in logistics performance
  - One voice
  - Trade hub

- **Panama**
  - #1 relative to trade routes
  - Trade growth U.S. and Latin America
  - #51 in logistics performance
  - One vision but many versions
  - Transit point

## Logistics Performance

### Panama Performance by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customs</td>
<td>49</td>
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<tr>
<td>Infrastructure</td>
<td>61</td>
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<tr>
<td>International shipments</td>
<td>71</td>
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<tr>
<td>Logistics competence</td>
<td>57</td>
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<tr>
<td>Tracking &amp; tracing</td>
<td>47</td>
</tr>
<tr>
<td>Timeliness</td>
<td>47</td>
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</tbody>
</table>
Established a Center on September 2010 to promote innovation and research, transfer knowledge, and improve logistics capabilities to position Panama as the premier Trade Hub of the Americas

Objectives:
- Increase the competitive advantage of local and regional businesses through improved logistics performance
- Improve and promote business ventures through industry and academia collaboration to position Panama as the trade hub
- Train highly qualified human resources from across the region in logistics

Strategic leadership:
- SENACYT
- MICI
- Georgia Institute of Technology
Key Components of Logistics Innovation Center

**Education**
- Education & Training Programs
- Forums and Workshops
- University Collaboration
- Logistics Training Hub

**Research**
- Baseline Development
- Data Repositories
- Logistics & Trade Models
- Logistics & Trade Analytics
- Systems

**Competitiveness**
- Collaboration Platforms
- Logistics Capability
- Trade Hub
- Entrepreneurship
Baseline Development: Logistics Assets

Panama Canal Locs

Airports

Sea Ports

Main Road Infrastructure
Baseline: Transportation Network Modeling
Mapping Infrastructure, Services and Flows

- **Locations**
  - Ports, airports, roads, warehouses, etc.

- **Characteristics**
  - E.g., ports (number and size of berths, cranes, space, etc.)

- **Capacity and utilization**

- **Metrics (e.g., time, cost, distance)**

- **Transportation services**

- **Logistics service providers**

- **Trade Flows**

- Etc.
National Logistics Council Committees

- **Infrastructure**
  - Provide a basis for measuring change
  - Determine bottlenecks
  - Assess integration needs and capabilities

- **Information technology**
  - Assess integration needs
  - Determine current status of logistics information technology
  - Determine technology gaps

- **Performance**
  - Develop a strategy for increasing the “perception” of Panama’s logistics performance
  - Develop a strategy for increasing Panama’s “actual” logistics performance

- **ProPanama**
  - To increase Panama’s participation in local, regional and global commerce
National Logistics Council Launch

- First NLC meetings held on October 5 and 6
- Panama has a lack of clear and precise information to help the decision making process
- Integration of government, cargo and logistics operators, industry players, academics and researchers, through the NLC
- Key points:
  - Build baseline, models and data repository
  - Document best practices for more efficient logistics services in Panama
  - Options to increase trade and service flows
  - Development of a continuous improvement model based on Panama’s logistics assets
  - Promotion of the country in ONE VOICE demonstrating our competitiveness as a local, regional and global hub for logistics services
Continuous improvement model

NLC

Goals

+ / -

One Vision

∑

Infrastructure and Technology

Gaps & Needs

Analysis, and Decision Making

Pro Panama

Understanding

Actions

Panama’s Logistics Environment

Data

Performance

Logistics Metrics & Indicators
Final Remarks

- This initiative is geared towards developing and implementing a sustainable program for logistics performance improvement for Panama
  - Using GIS and simulation-based analysis tools for research and decision making and training
  - Involving the participation of all key players (academia, government and private sector) in determining deficiencies and implementing correcting actions
    Great opportunity for research collaboration and entrepreneurship

- The final goal is to facilitate local, regional and global trade through the consolidation of Panama as the Premier Trade Hub of the Americas
Thank You

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