THE GRAND INTEROCEANIC CANAL IN THE ECONOMIC DEVELOPMENT OF NICARAGUA, CENTRAL AMERICA AND LATIN AMERICA WORLD AND REGIONAL MULTIMODAL

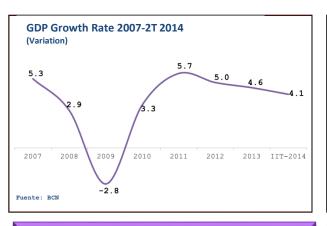
DR. PAUL OQUIST
Minister
Private Secretary for National Policies
Presidency of the Republic
Nicaragua

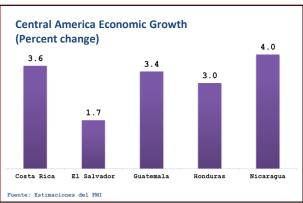
LOGISTICAL CENTER

Belgium



Economic growth with macroeconomic stability





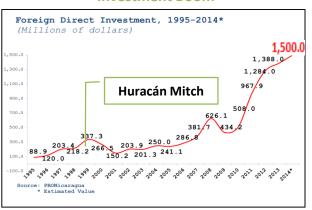


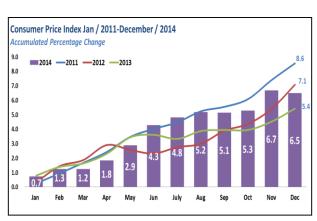
5% average growth 2011-2013

Highest Economic Growth in Central America

Exports doubled between 2006 and 2012

Investment Boom





Gross International Reserves, 2007 - 2016*
(Millions of dollars)

2,400.0
2,200.0
2,000.0
1,800.0
1,799.0

1,799.0

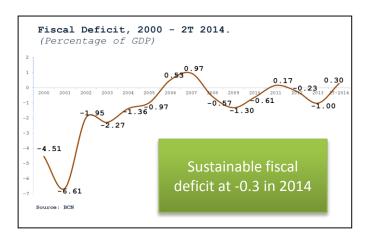
1,100.0
1,100.0
1,100.0
2007 2008 2009 2010 2011 2012 2013 sep-14 2015* 2016*
Source: BCN
*Estimates SPFN

Investment record: More than 5 times 2006

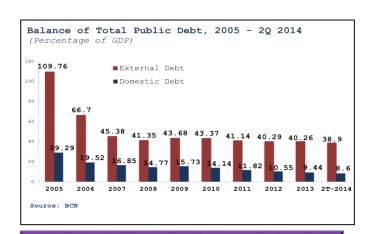
1-digit inflation and decreasing

High International Reserves: 2.8 times the monetary base, allows free exchange and currency stability

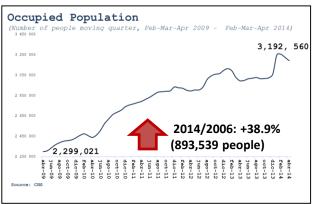
Fiscal Stability Increased work

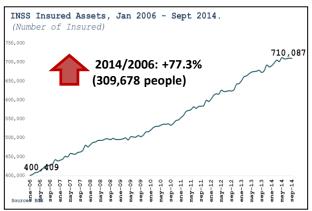


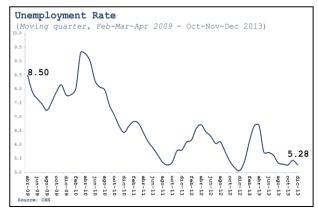
Sustainable fiscal deficit



Constant reduction of national debt





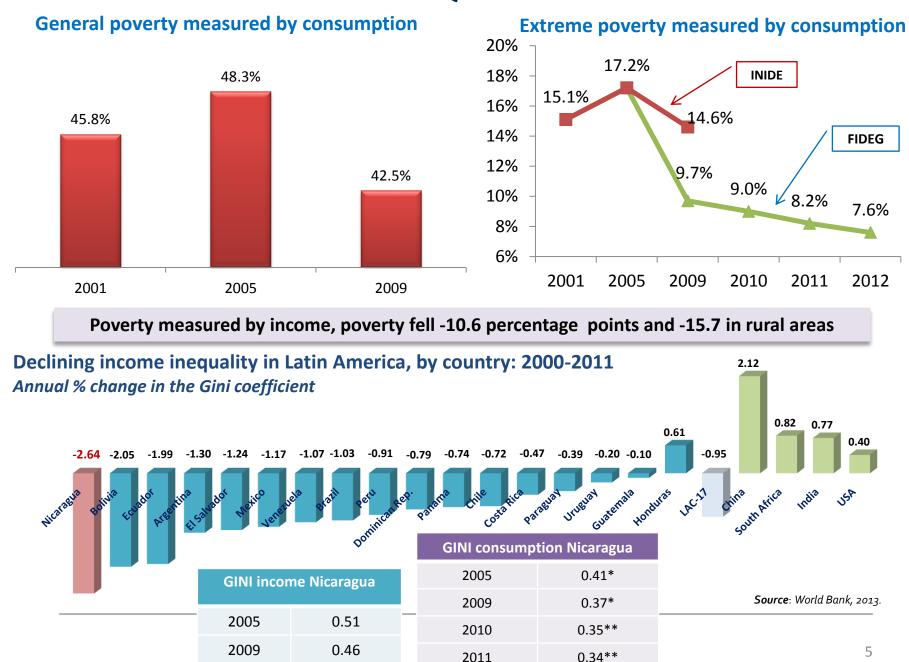


More work: 38.9% more than in 2006

Formal employment growth: 77.3% more people registered than in 2006

Fewer unemployment

POVERTY AND INEQUALITY REDUCTION



GREATER GENDER EQUALITY

World Gender Gap Index 2013 - World Economic Forum, Davos-

Rank	Country	
1	Iceland	
2	Finland	
3	Noway	
4	Sweden	
5	Denmark	
6	NICARAGUA	
7	Rwanda	
8	Ireland	France OOth
9	Phillipines	From 90th in 2007 to
10	Belgium	
11	Switzerland	6th in 2014
12	Germany	
13	New Zeland	
14	Netherlands	
15	Latvia	
16	France	
17	Burundi	
18	South Africa	
19	Canada	
20	United States	

Nicaragua is #1 in the World with regard to women in the National Cabinet , 57% (IPU, 2013)

"Women in Politics 2014"

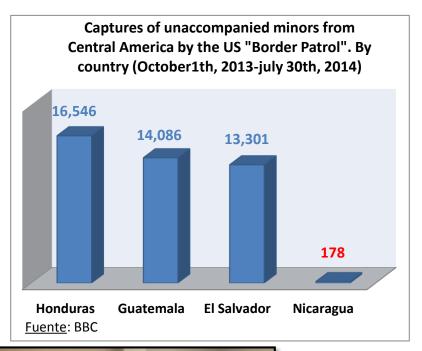
Percentage of women in parliaments of the world

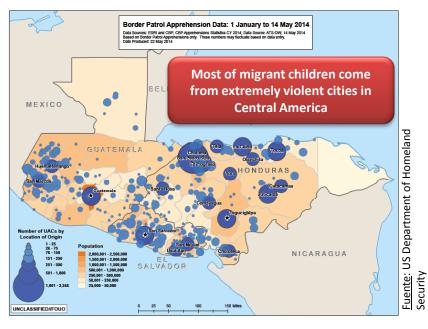
	COUNTRY	PERCENTAGE OF WOMEN	WOMEN / SEATS
1	RWANDA	63.8%	51/80
2	ANDORRA	50.0%	14/28
3	CUBA	48.9%	299/612
4	SEYCHELLES	43.8%	14/32
5	SWEDEN	43.6%	152/349
6	SENEGAL	43.3%	65/150
7	FINLAND	42.5%	85/200
8	NICARAGUA	42.4%	39/92
9	ECUADOR	41.6%	57/137
10	SOUTHAFRICA	44.8%	179/400

- ✓ It went from 18% in 2006 to 42% in 2012.
- ✓ The new law 50% -50% in the National Assembly and mayors, vice mayors and councilors, will take Nicaragua to second place in the world in 2016.

Women in positions of Minister of Defense, Minister of Interior, National Police Chief, General Prosecutor and President of the Supreme Court

UNACCOMPANIED MIGRANT CHILDREN





The children's reasons to leave their homes

Fuente: ACNUR

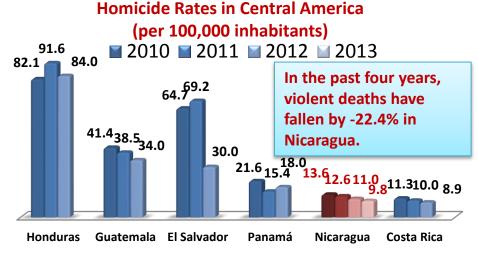


SURVEY OF COST OF LIVING IN LATIN AMERICA: MANAGUA (POSITION 207 of 211) THE CITIES WITH LOWEST COST OF LIVING IN LATIN AMERICA

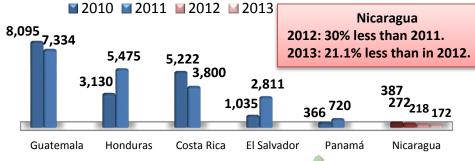
LAC	2014	CITY	COUNTRY
1	49	Sao Paulo	Brazil
2	65	Rio de Janeiro	Brazil
3	70	Pointe-a-Pitre	Guadalupe
4	81	Port-au-Prince	Haití
5	86	Buenos Aires	Argentina
6	88	Santiago	Chile
7	98	Bogotá	Colombia
8	114	Montevideo	Uruguay
9	132	San José	Costa Rica
10	134	La Habana	Cuba
11	135	Lima	Perú
12	139	San Juan	Puerto Rico
13	144	Brasilia	Brazil
14	145	Panamá	Panama
15	149	Puerto España	Trinidad & Tobago
16	150	Mexico	Mexico
17	170	Guatemala	Guatemala
18	173	Santo Domingo	Dominican Republic
19	176	Asunción	Paraguay
20	177	Quito	Ecuador
21	183	Monterrey	Mexico
22	190	San Salvador	El Salvador
23	200	Tegucigalpa	Honduras
24	204	La Paz	Bolivia
25	207	Managua	Nicaragua

Source: MERCER

THE BEST PUBLIC SAFETY IN CENTRAL AMERICA



Vehicle theft in Central America

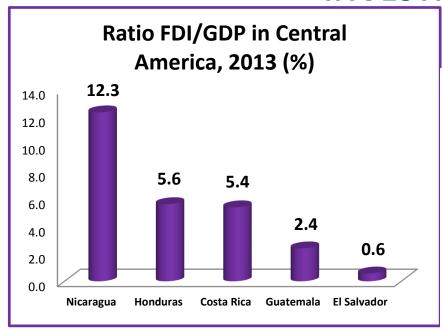


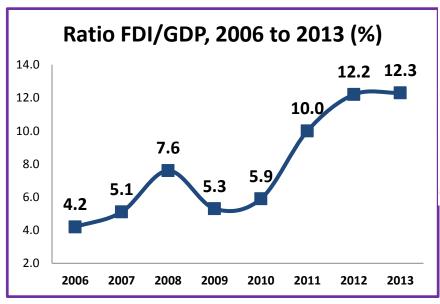
The National Police of Nicaragua (PNN) is a leader In Central America and in the world, as a police model with a "preventive, proactive and community" approach.

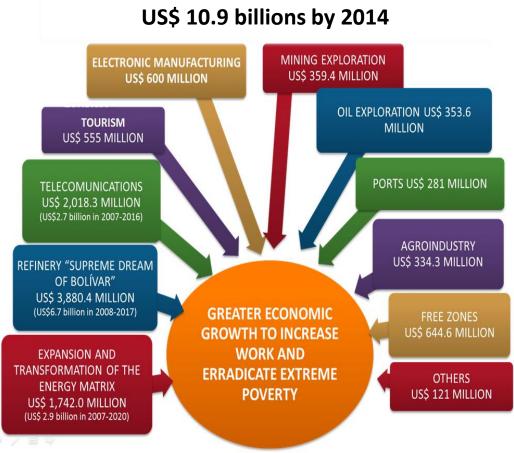
UNDP. 2013. Regional Human
Development Report 2013-2014. Public
security with a human face: diagnosis and
proposals to Latin America



INVESTMENT BOOM







Investment Portfolio



WE ARE GROWING AT 5% BUT TO MEET THE BASIC NEEDS OF NICARAGUAN PEOPLE WOULD HAVE TO GROW AT 8% AND 10% OR MORE TO ERRADICATE EXTREME POVERTY, REFOREST THE COUNTRY, TO ADAPT TO CLIMATE CHANGE AND INCREASING THE RESILIENCE OF OUR ECOSYSTEM

STRATEGY:

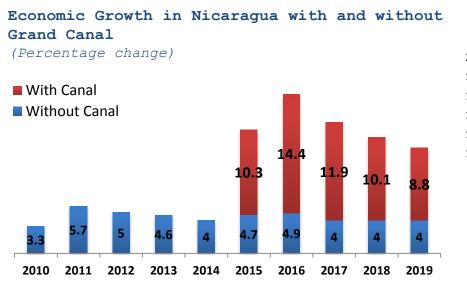
TAKE ADVANTAGE OF
GEOGRAPHICAL POSITION AND
WATER RESOURCES

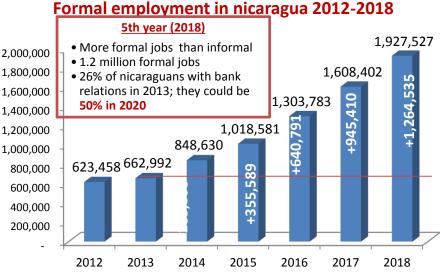
ACTION:

THE CONSTRUCTION OF THE GRAND INTEROCEANIC CANAL

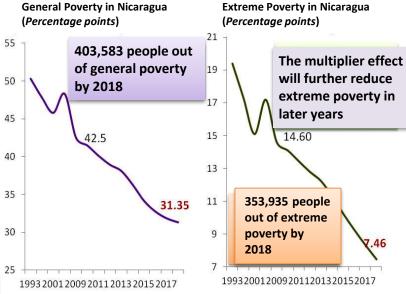


THE GRAND INTEROCEANIC CANAL OF NICARAGUA: MAIN IMPACTS EXPECTED





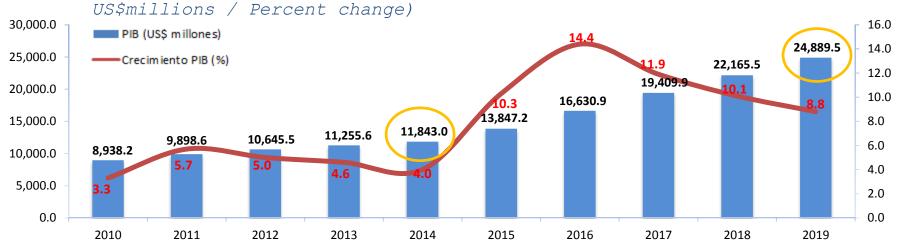




Fuente: INIDE (1993-2009) & Estimaciones Propias

GROWTH GDP: NICARAGUA AND PANAMÁ

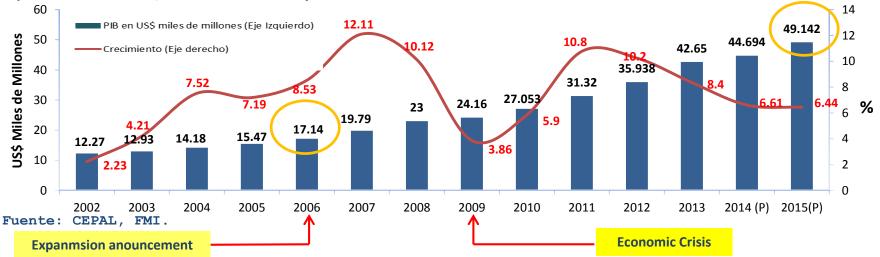
Nicaragua Economic Growth with Canal



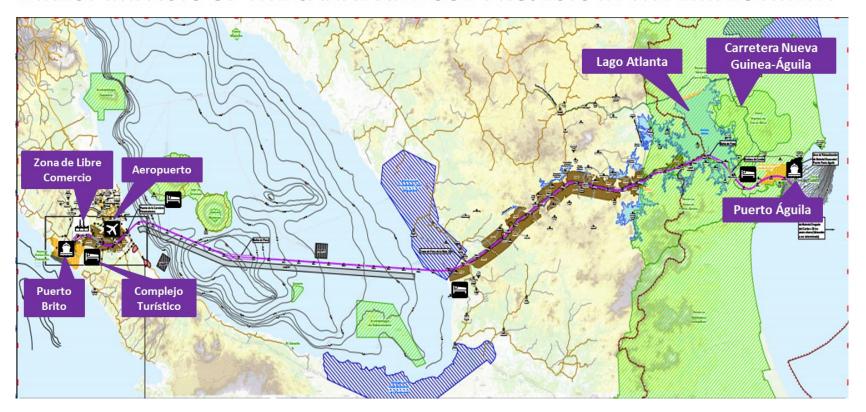
Fuente: BCN, FMI y Estimaciones SPPN

Panama's economic growth with Canal expansion





DIRECT IMPACTS OF THE CANAL AND SUB PROJECTS IN THE EMPLOYMENT



50,000 jobs in the construction stage

• 25, 000 foreign workers

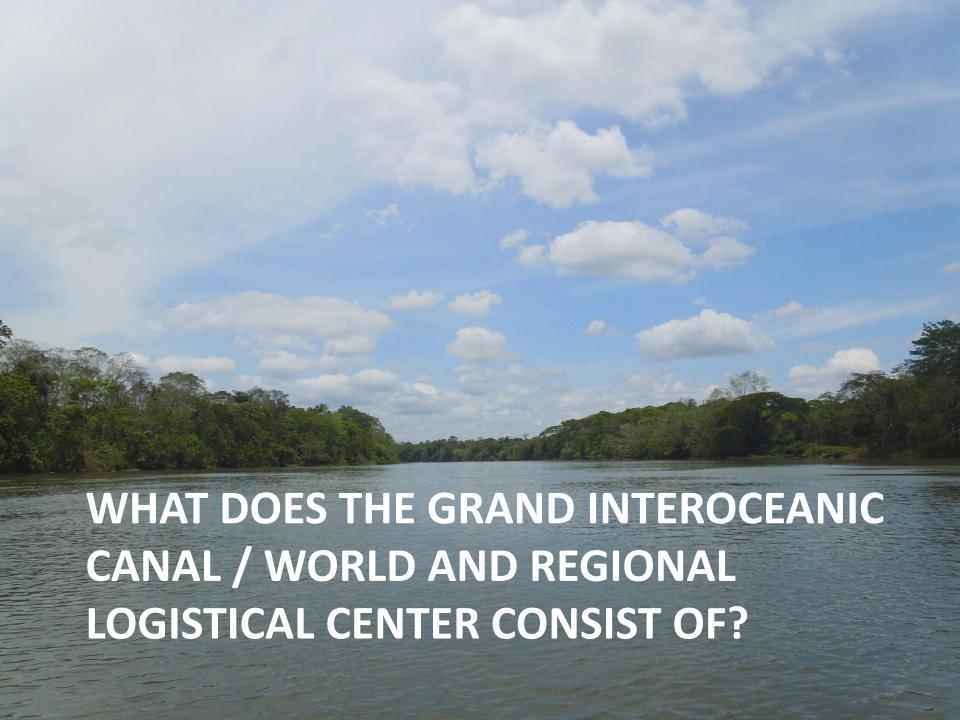
• 25, 000 nicaraguan workers

Operation: 3,700 jobs in 2020 12,700 in 2050

113 thousand jobs in free trade zone

More than 3000 jobs in resorts

PLUS MULTIPLIER
EFFECTS IN
EMPLOYMENT
THROUGHOUT THE
ECONOMY



The final proposal: 7 sub proyectos

THE GRAND INTEROCEANIC CANAL OF NICARAGUA:

MULTIMODAL LOGISTIC CENTER FOR REGIONAL AND GLOBAL TRADE







1. A Ship Canal joining the Caribbean Sea and the Pacific Ocean

2. A Port at Punta Águila in the Caribbean coast 3. A port at Brito in the Pacific coast









4. A Free Trade
Zone on the
Pacific coast
(Rivas)

5. An International Airport in Rivas

6. 595.66km of Roads, highways, access roads and 2 bridges

7. Tourist
Complexes (Lodging
for
construction/operation,
opening to tourism later)

SELECTION PROCESS OF ROUTE

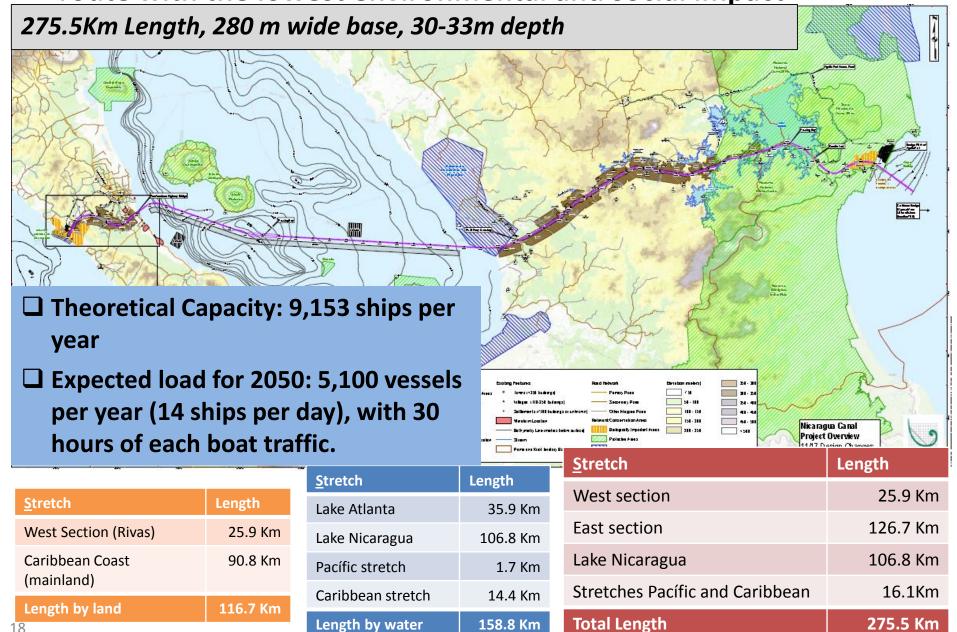
Previously Identified Routes



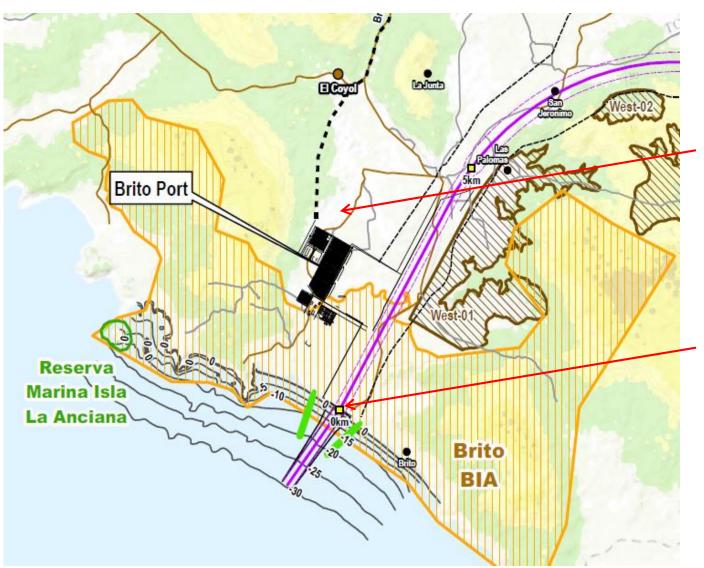
Eastern Segment of Routes:

- 1, 2 Bluefields Bay and north of the Cerro Silva Reserve
- 3 Bluefields Bay and central Cerro Silva
- 4 Punta Gorda and Tule River
- 5 Punta Gorda, Rio San Juan, San Carlos
- 6 Indio Maiz, Rio San Juan and San Carlos

Choice of route 4: It has superior economic cost, but it is the route with the lowest environmental and social impact



Adjustments on Route 4 Inland Port is less vulnerable to sea risks



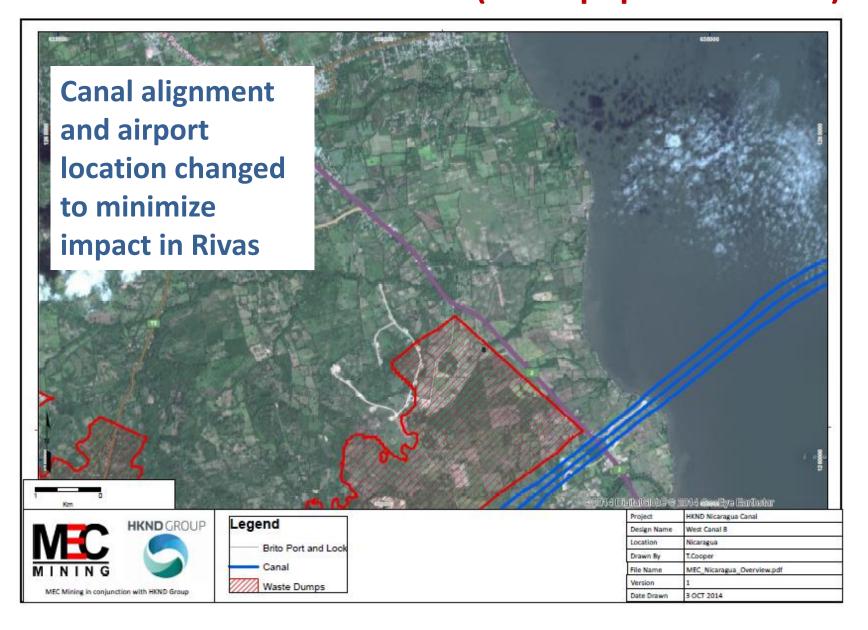
Increased protection against tsunamis

A Road linking the Port to Tola

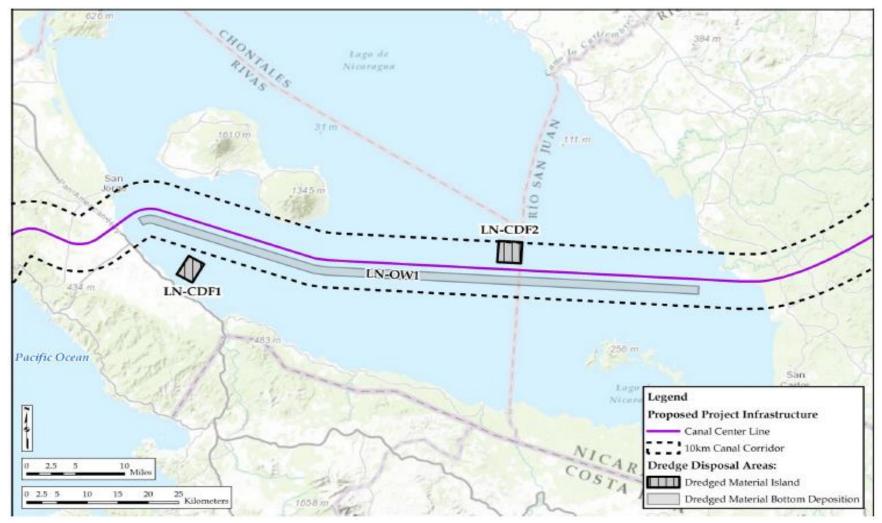
A Rock Bund to be designed to enable better mix of salt and fresh water to mangrove

Healthy portion of Mangrove & most of Brito River will be preserved and the impact to Reserva Marina Isla La Anciana will be minimize

Adjustments on Route 4 West Entrance into the Lake (avoid populated areas)

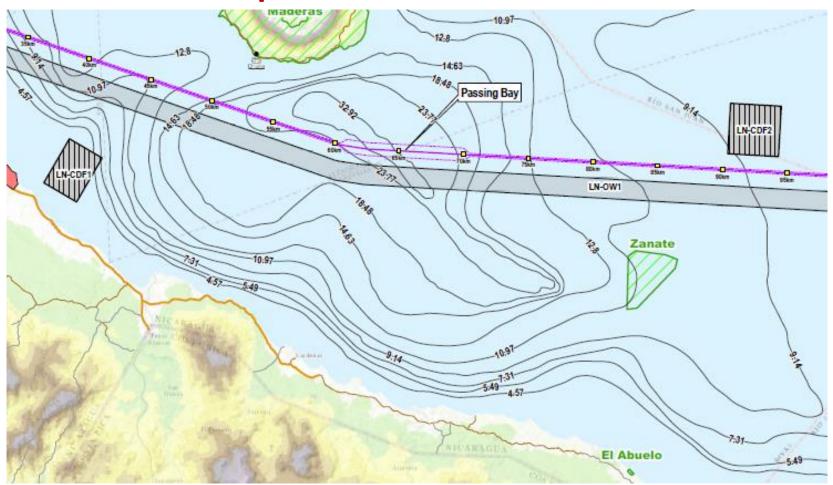


Adjustments on Route 4 The Lake Section



There will be hydraulic dredging (suction) of sediment. There will be no blasting inside the Lake.

Adjustments on Route 4 Spoil Treatment in the Lake



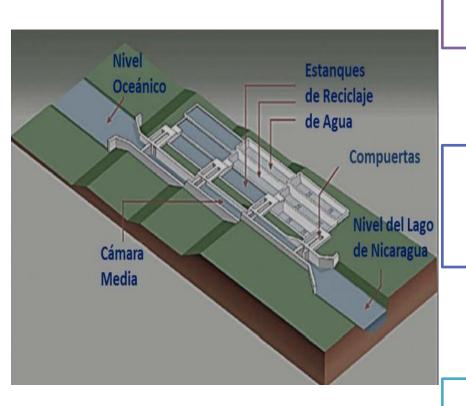
Silt and fine materials will be by confined dumping. Sand and hard materials will be distributed along the south side of the Canal route.

Adjustments on Route 4 Exit from the Lake



The alignment has been changed for the output from the Lake to the eastern area of the Canal, in order to minimize the impact on the wetlands of San Miguelito

The Grand Canal project is designed to not to do net use of water from Lake Nicaragua

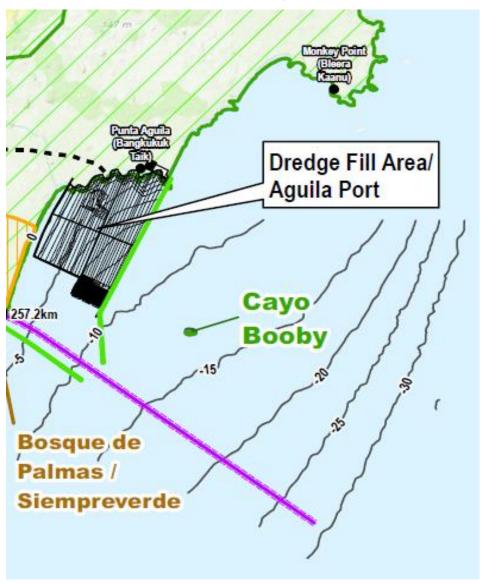


The locks will capture water from the Basin of River Punta Gorda, which otherwise would flow into the Caribbean Sea.

The supplementary water supply is provided through the Zarca Water Reservoir.

A system for water conservation consisting of nine basins to recycle water in both locks and Camilo Brito (three basins associated with each of the three chambers forming the lock) will be built. Should reduce the total demand for water sluice 60%.

Adjustments on Route 4 Port Punta Aguila will be on reclaimed land



Port Punta Aguila will be on dredge filled reclaimed land with minimal impact on the Indigenous People.

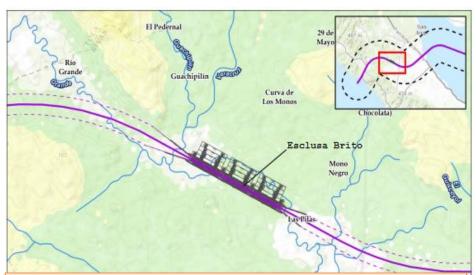
All developments like Free Trade Zone will be confined to the reclaimed land.

Canal route avoids impact to Booby Cay.

Brito & Camilo Locks: 3 Chambers & 9 water recicling pools

Same design for both: three consecutive chambers, which would raise the boats over 10 meters by chamber, for a total of approximately 30 meters.

Effective dimension for each one of the three chambers: 520 meters (long) x 75 meters (W) x 27.6 meters deep (threshold).

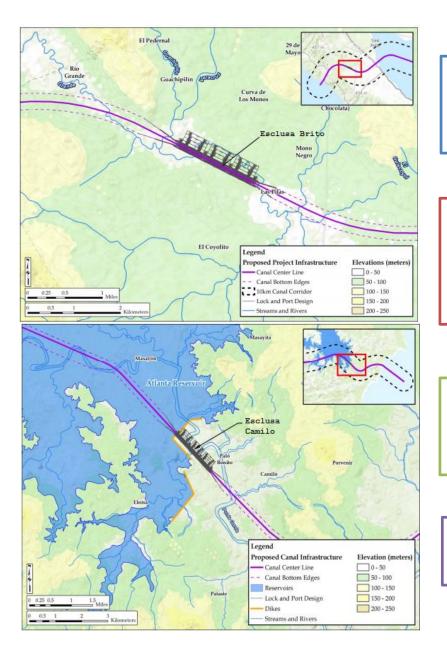


Brito Lock: located on the west segment of the canal, near the Mono Negro River, approximately 14.5km from the Pacific Ocean.



Camilo Lock: located in the East segment of the Canal, near the confluence of Punta Gorda with Camilo Cano, approximately 13.7km from the Caribbean coast.

Locks system



The locks will raise or fall the ships between the level of Caribbean / Pacific Sea and the water level of Lake Nicaragua (30.2 to 33.0 meters).

They will have the same design: they consist of three consecutive chambers, which would raise the ships over 10 meters by the camera, for a total of approximately 30 meters.

Effective dimension for each of the three chambers: 520 meters (long) x 75 meters (W) x 27.6 meters deep (threshold).

Each lock will require approximately 4.5 million cubic meters (Mm3) of concrete.

Comparison between the locks in the world

BERENDRECHT LOCK

- Current World's largest lock
- Dimensions: 500 m x 68 m x 20 m
- Equipped with rolling gates
- No water saving basins
- Rik Thomas was design & construction manager (1984-1989)



NEW PANAMA LOCKS (3rd lane)

- Design based on Berendrecht lock
- Dimensions: 427 m x 55 m x 18.3 m
- Equipped with rolling gates
- Water Saving Basins
- SBE performed the reference design

DEURGANCKDOK LOCK

- Future largest lock in the world (2016)
- Design based on Berendrecht lock
- Dimensions: 500 m x 68 m x 22 m
- Equipped with rolling gates
- No Water Saving Basins
- SBE is Owner's Engineer

BRITO & CAMILO LOCK'S (CARIBBEAN COAST)

- Future largest lock in the world (2020)
- Design based on Berendrecht lock new Panama Locks
- Dimensions: 520 m x 75 m x 27.6 m
- Equipped with rolling gates
- Water Saving Basins
- SBE is Owner's Engineer

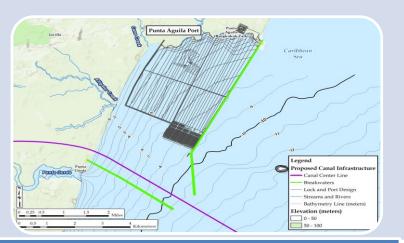
TWO PORTS WILL BE BUILT, 1 IN THE PACIFIC AND OTHER IN THE CARIBBEAN

BRITO PORT



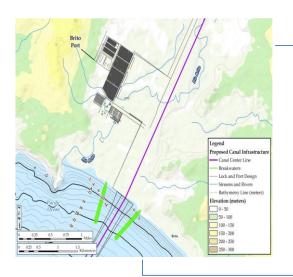
- Design capacity: 1.68 million TEU / year .
 Approximately 80th in top 100 world's container ports
- North Wharf Structure, 1.100 meters long, capable of supporting 200,000 DWT bulk carriers or 25,000 TEU container ship;
- West Wharf berthing facilities, 1,200 meters long, with capacity for:
 - * Three container berths 70,000 DWT;
 - * A jetty oil / fuel of 30,000 DWT;
 - * 13 workboat berths
- Other marine services.

ÁGUILA PORT

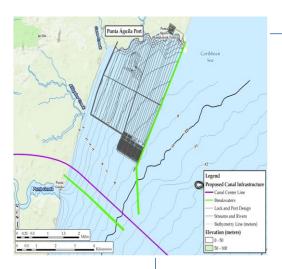


- Design capacity: 2.5 million TEU / year. Approximately 58th in top 100 world's container ports
- Wharf Structure for container ship 200,000 DWT;
- Berthing Facilities 1,300 meters long, with capacity for:
 - * Three container berths 150 thousand DWT;
 - * A jetty oil / fuel of 30,000 DWT;
 - * 8 working boat docks;
- Other marine services.

ROMPEOLAS

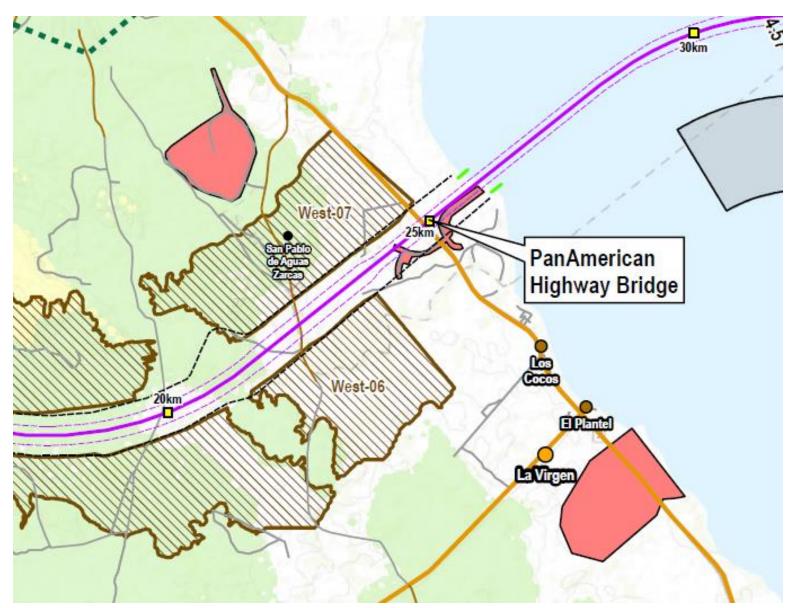


The Pacific breakwater would extend approximately 800 m from the shoreline on both sides of the canal. It will be constructed with armor rock sourced from the Brito Lock. The overall footprint of each breakwater will be about 62,000 square meters (m2), or 124,000 m2 total for the two breakwaters.

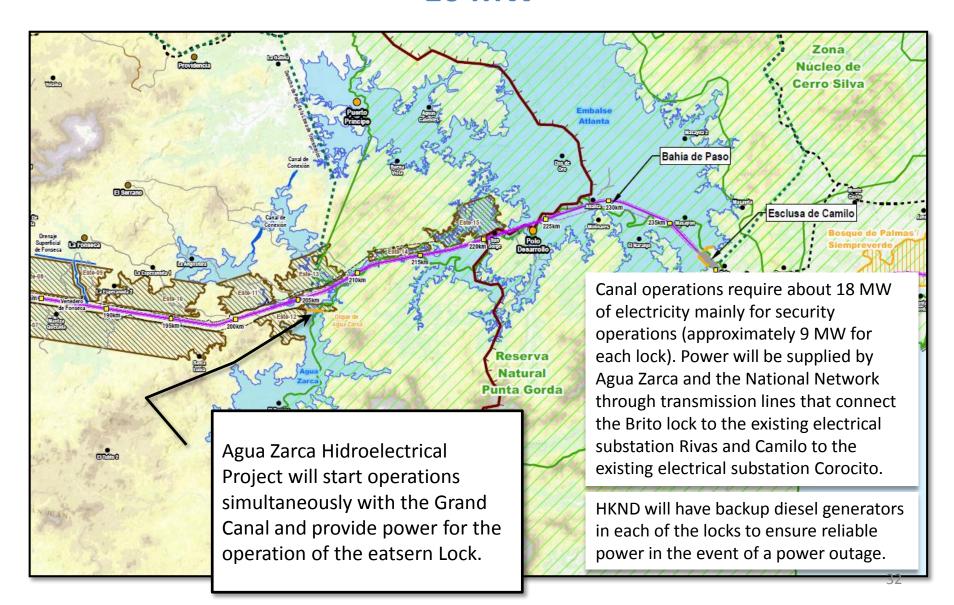


The Caribbean breakwater would include two different structures, one at each side of the canal. The breakwater located to the north of the canal would extend south from Punta Aguila approximately 7 kilometers to a location about 3 kilometers southwest of Booby Cay. The breakwater located to the south of the canal would be located about 1 kilometers north of the mouth of the Rio Punta Gorda and would be oriented perpendicular to the shoreline and extend approximately 3.5 kilometers. The overall footprint of north breakwater would be about 238,000 m2. The overall footprint of the south breakwater will be about 105,000 m2. Combined, this would be approximately 343,000 m2 total for the two breakwaters.

Bridge over the Panamerican Highway 80M high & 600M long



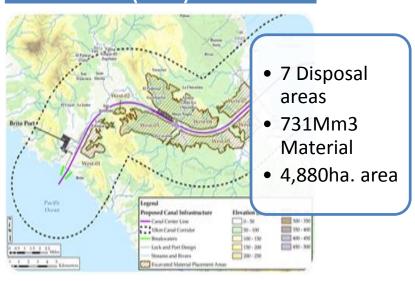
AGUA ZARCA HIDROELECTRICAL CENTRAL 10 MW



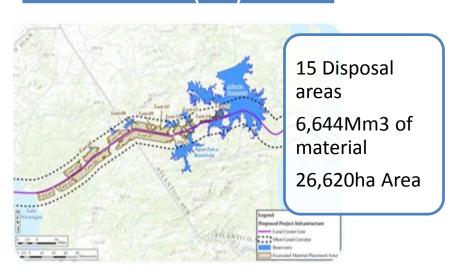
The Canal will be the largest civil earthmoving operation in history

- 5,000 Mm3 of excavated material
 - 4,019 Mm3 of "dry" material from upland (rock and soil)
 - 980 Mm3 marine and freshwater dredging.
- 35 areas for material disposal along the canal
 - 3,400 Mm3 storage volume and a total area of 179 km2
 - These areas have been located to minimize environmental and social impacts 715Mm3 of lake sediment will be placed in 3 disposal sites in the Lake
- The final surface of these areas will be graded so that they can be restored to agricultural or forestry.

Excavated material disposal areas (West)



Disposal sites for dredged material (East)



Disposal sites for dredged material (Lake Nicaragua)



CANAL STEP BY STEP

JULY, 2014

PRESENTATION OF THE ROUTE

AUGUST 23-OCTOBER 15, 2014

CENSUS FROM POPULATION AND PROPERTY

NOVEMBER 20, 2014

PRESENTATION OF THE GRAND CANAL PROJECT

DECEMBER, 2014

PRESENTATION OF FESEABILITY STUDIES

DECEMBER 22, 2014

CONSTRUCTION STARTS

DECEMBER 2019

CONSTRUCTIONS ENDS

2015 WORK SCHEDULE

Tender for the Tender and Bidding and Measurement, plan and property initiation of preliminary beginning of acquisition design of the construction of excavation between the Project the East and West Construction of communities of El locks access roads -Measurement, Tule and La Union Eastern section of design and land Canal acquisition and construction of access roads -Western Section Channel Completion of the report on the Environmental **Impact**

CONSTRUCTION SEQUENCE OF THE GRAND CANAL

Pre-Construction Phase (ongoing)

Secure all necessary permits and authorizations

Completion of engineering design and construction drawings

Land acquisition and initial resettlement

Issuance of offers and selection of contractors

Purchase of construction machinery and equipment, materials

Other preparatory work

Early construction phase (until September / 2015)

Providing access to construction

Establishment of critical infrastructure. For example: energy, housing for workers.

Mobilization initial work force

Construction phase (September / 2015 -March / 2020)

Excavation and construction of the locks

Complete construction of Brito Lock and West Canal full of water (approx. January / 2020)

Complete construction of Camilo Lock and East Canal full of water (approx. March / 2020)

Startup phase (April / 2020 - June / 2020)

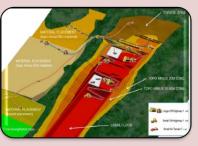
Operation tests will begin as soon as the East and West Canal segments are filled with water

Includes blocking operations tests and training of lock and tug operators

UPCOMING TENDERS

- "REFERENCE DESIGNS"
- "TENDER BRIEFS"







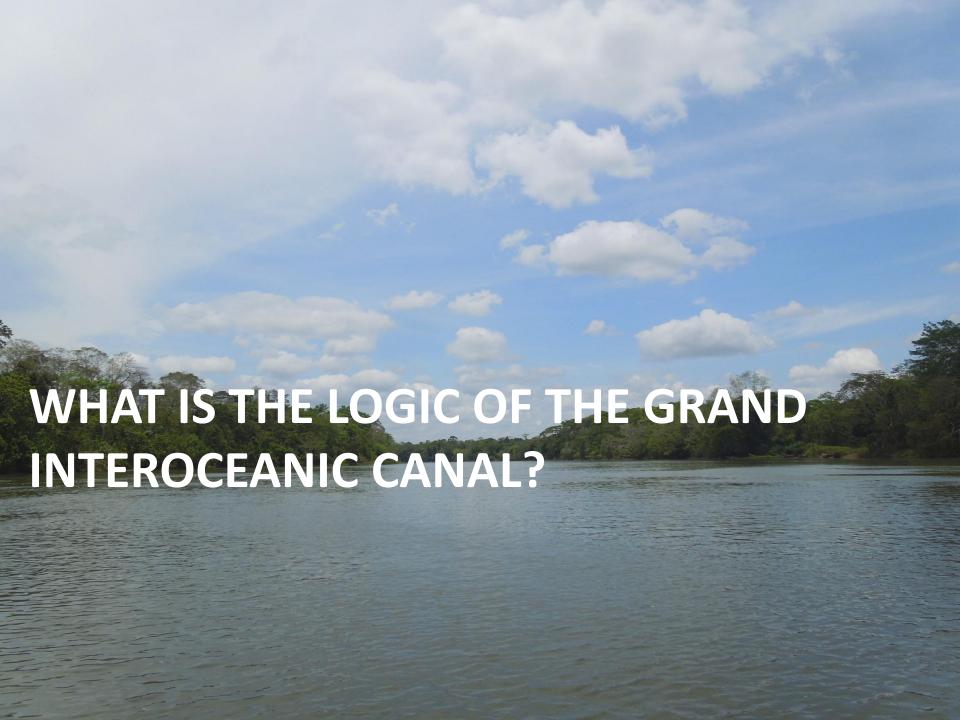


Locks

Land movements

Ports

Dredging

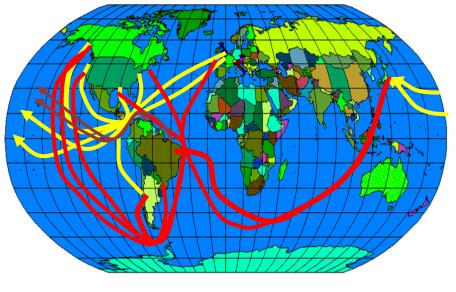


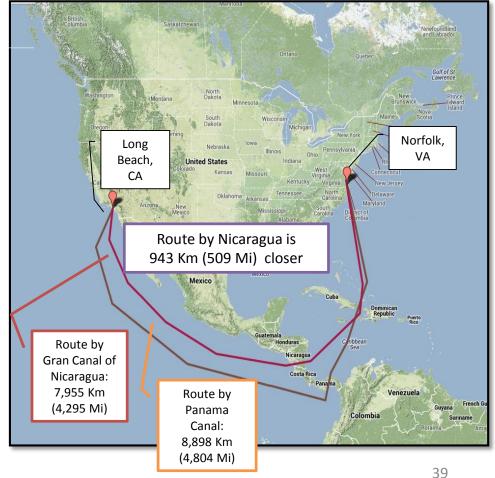
GEOGRAPHICAL POSITION OF NICARAGUA

GEOGRAPHICAL PROXIMITY

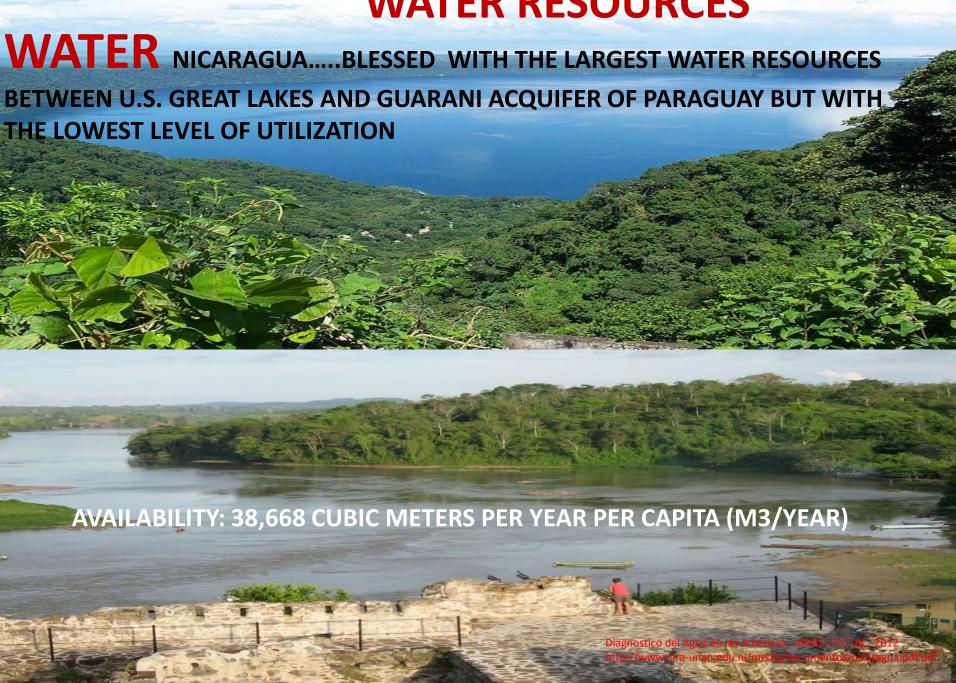
Norfolk – Long Beach route (Distances between Panama Canal and Grand Canal of Nicaragua)

WORLD SEABORNE TRADE





WATER RESOURCES



THE WORLD NEEDS A LARGER CANAL

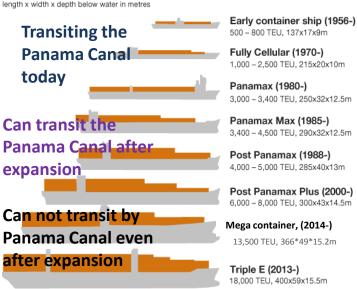
TRIPLE E SHIPS DOMINATE WORLD SEABORNE TRADE





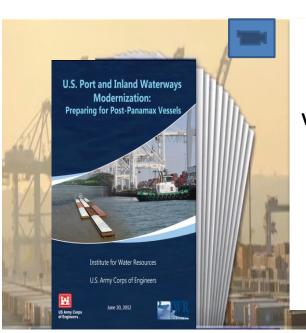
Evolution of container ships

TEU: twenty-foot equivalent units. length x width x depth below water in metres



Adapted with permission from The Geography of Transport Systems, Jean-Paul Rodrigue

TEU:20-feet container equivalent unit



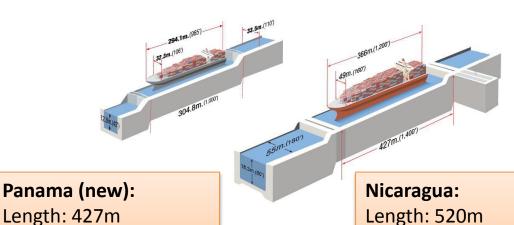
By 2030 post-Panamax vessels will represent 30% of all vessels and 60-70% of world trade

Vessels of 10,000 TEUs and over accounted for 48% of the order book as of October 2011. It is evident that large ships are displacing smaller ships in all trade routes due to cost efficiencies of larger ships

US Army Engineers Corps, 2012

LIMITATIONS OF THE PANAMA CANAL FOR LARGER VESSELS

Current Locks New Locks



Length: 520m Width: 750mm Depth: 27.6m

Height: 80m

Height: 61.3m Wider bow adds 16% more container space MAERSK LINE

Two four-blade propellers run by twin 32MW engines

Width: 55m

Depth: 18.3m

Engines moved backwards to increase stability Bridge moved forward to improve the line of sight and allow containers to be stacked higher

U-shaped hull design provides more space below deck

Vessel is too wide for the Panama Canal and too tall for all ports in the U.S.

Maersk EEE



26,7-30,0

METROS

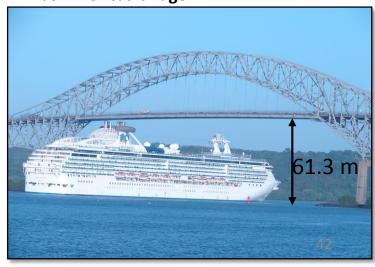
CANAL DE NICARAGUA

Las Américas bridge

CANAL DE PANAMÁ

TRAS AMPLIACIÓN

13,7 METROS DE PROFUNDIDAD



TRASNPORT COSTS AND CO2

EMISSIONS

UP TO 30% REDUCTION IN COST OF METRIC TONNE SHIPPED

400 meters long, 59 meters wide y 73 meters high, 12.6 meters deep

Reduce CO2 emissions by 50% per twentyfoot-equivalent units (TEU), compared to industry average on the Asia-Europe trade.

Consumes approximately 35% less fuel per container than the 13,100 TEU vessels

Emits less grams of CO2/ton km than other forms of transport



Grams of CO₂ emitted by transporting 1 ton of goods 1 km



The largest ships in the world



MSC «OSCAR» (January 2015)

- Capacity: 19.224 TEU
- 395.4 m. in length
- 59m breadth
- 16m depth

Property of China's Bank of Communications

2. CSCL GLOBE (December 2014)

- Capacity:19,100 TEU
- 400 m. in length
- 58.6 m breadth
- 15m depth
- Consumes 20% less energy than a ship of 10,000 TEUs

Property of **China Shipping Container Lines**



MAERSK LINE (Triple E's owner) plans to build six ships of 19,000 TEU by 2017

SOME OF THE WORLD'S LARGEST SHIPYARD



WHO BUILT THE LARGEST SHIP IN THE WORLD?



Maersk EEE was built by **Daewoo Shipbuilding** in Okpo, South Korea, 2013





Prelude FLNG is the largest ever built first floating liquefied natural gas platform in the world and the ship. The Prelude is being built by **Samsung Heavy Industries** in Geoje, South Korea, by Royal Dutch Shell.

Hyundai Heavy Industries has begun the construction of the first of five container ships of 19,000 TEUs of China Shipping Container Lines.

Dimensions and capacities of the Grand Interoceanic Canal of Nicaragua

Grand Interoceanic Canal of Nicaragua

 Length: 275.5km (106.8km on Lake Nicaragua)

Width: 280m

Depth: 30-33m

 Capacity: 5,100 ships a year(2050), with 30 hours of transit each boat.

The Canal will allow the transit of:

- 25,000 TEU container ships,
- bulk ships of 400 thousand dwt,
- Oil tankers of 320 thousand dwt.



The capacity of a Triple-E vessel is 18,800 TEU

Panama Canal

Actual:

Length: 80Km

Width: 91-300m

Depth: 12.8m (Atlantic), 13.7m (Pacific)

4,500 TEU vessels, maximun

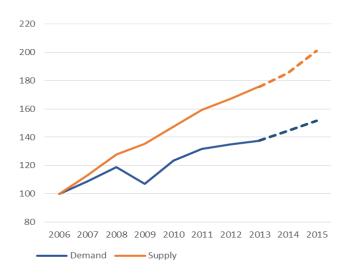
With the ampliation:

- 13,000 TEU vessels, maximun
- Bulk ships of 200 thousand dwt
- Oil tankers of 120 thousand dwt

Estimating the state of demand for maritime transport in 2050

Present day

 The gap Supply / demand of ships has been increasing



- Cumulative loss of \$ 6 billion in the period 2009-2013 for the 18 companies who have published their results.
- Without Maersk Line and CMA CGM, the remaining 16 companies have an accumulated loss of US \$ 10.4 billion.
- Strategy for survival: larger, more efficient ships to save the gains.

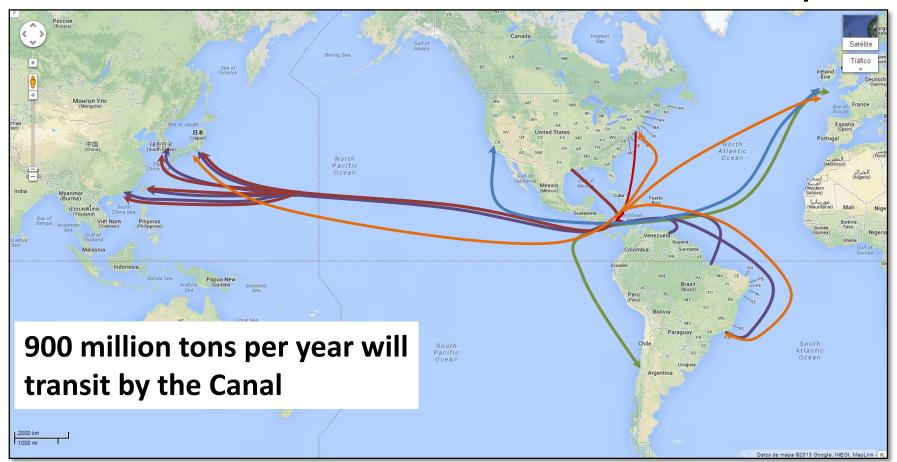
In 2050

- Assuming a 2% average growth per year, the growth will be from 150 million today to 450 million TEUs in 2050. With 4% this would become 640 million TEU.
- Entire fleet will be replaced.
- If a fleet three times larger than the current is assumed, <u>US \$ 600</u> <u>billion would be needed to</u> <u>acquire biggest new fleet.</u> The largest ships are constructed in China, South Korea and Japan

<u>Fuente</u>: Lars Jenssen, CEO SeaIntel Consulting.

THE INTEROCEANIC GRAND CANAL OF NICARAGUA: THE ROUTE FOR EXTERNAL COMMERCE

The Grand Canal will assume 5% of the world trade transport



- Iron, oil, gas from Venezuela and Brazil, soybean production from South America to Asia
- Oil and gas from the United States and Canada (Keystone XL Pipeline) to Asia
- Asian manufactured goods to USA, South America and Europe and vice versa

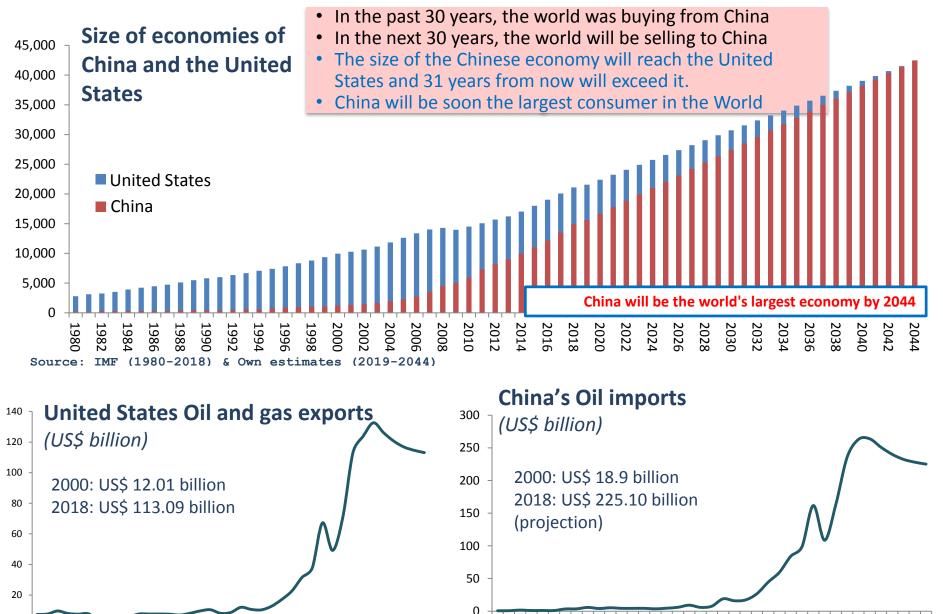
Route from the West Coast USA to Europe and vice versa

Route of copper, fruit and wine from Chile and Peru to

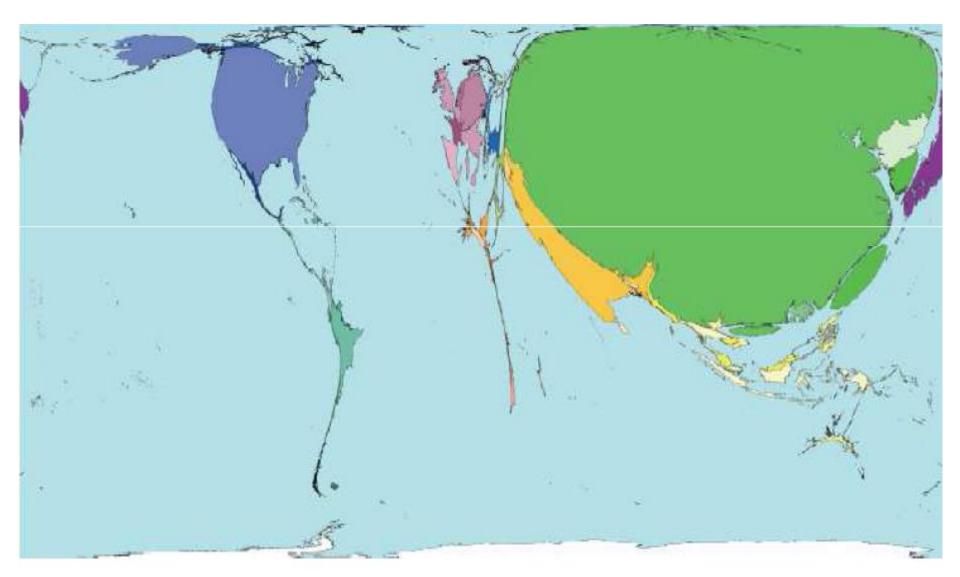
Europe and European manufactured goods to the west

coast of South America

CHINA: FROM SELLER TO BUYER



Port Throughput by Relative Share (Containers)



Source: Gonzalez laxe, Freire & Pais (2011)

Freight Estimated Savings in the main exports to Asia

Considering that the transport of goods in larger vessels reduce the cost of freight by 30% per ton.

FOB exports from Brazil to Asia (excluding Middle East) January-September 2014. example: 3 main products (million tons. and US \$ million)

	Weight (TM.)	US\$	Approximate cost of freight	Estimated Savings
General Total (others included)	250.94	59,320.65	4,449.05	1,334.71
Soy	35.60	18,127.05	1,359.53	407.86
Iron ore	167.72	12,481.26	936.09	280.83
Oil*	7.21	45,45.65	340.92	102.28

^{*}It will grow with offshore fields

Venezuela fuel exports to Asia. 2012

	US\$ millions
Total	38,363.3
Approximate cost	
of freight	2,877.2
Estimated Savings	863.2

Total exports from Argentina to

Ministry for Development, Industry and Foreign Trade, Brazil

China. 2012

	US\$ millions		
Total	5,900		
Approximate cost			
of freight	442.5		
Estimated Savings	132.8		

52

Development Process of the Gran Interoceanic Canal Legal Framework

July 3, 2012

Law 800 'Law of Legal Regime of the Grand Interoceanic Canal of Nicaragua and Creation of the Authority of the Grand Interoceanic Canal of Nicaragua»

September 5, 2012

Memorandum of Understanding with HKND

May 23, 2013

Consultations with the Autonomous Southern Caribbean Regional Council

June 14, 2013

Law 840 "Special Law for the Development of Infrastructure and Transportation relating to Nicaraguan Canal, Free Trade Zone and associated infrastructure"

2013-2014

Constitutional Reform



August 26, 2014

Permission granted for canal studies to HKND by the Territorial Government Rama-Kriol

Law 840 «Special Law for the Development of Nicaraguan Infrastructure and Transportation related to the Canal, Free Trade Zone & Associated Infrastructures»

- Grants an exclusive concession in favor of The Investor and its concessionaries for the Development and Operation of every Sub- Project, according to the MCA for a term of fifty (50) years, renewable for other 50 years.
- HKND assumes all costs and risks of the feasibility
- HKND commits to mobilize at least US\$40 billion for the construction.
- The Nicaraguan Canal Commission approves the plans of the subprojects and monitors their execution, emits environmental and construction permits through a one stop shop window and is in charge of environmental protection.

ASAMBLEA NACIONAL El Presidente de la República de Nicaragua A sus habitantes, Sabed: Que, LA ASAMBLEA NACIONAL LA SIguiente: CONSIDERANDO LEY N°. 840

Que el artículo 98 de la Constitución Política de la República de Nicaragua establece que es la función principal del Estado en la economía desarrollar el país materialmente, así como promover su desarrollo integral, y que el artículo 105 de la Constitución Política de la República de Nicaragua, explícitamente dispone que "Es obligación del Estado promover, facilitar y regular la prestación de los servicios públicos básicos de energía, comunicación, agua, transporte, infraestructura vial, puertos y aeropuertos a la población, y derecho inalienable de la misma el acceso a ellos. Las inversiones privadas y sus medalidades y las concesiones de explotación a sujetos privados en estas áreas, serán reguladas por la ley en cada caso."

ш

Que la Ley Nº 800, "Ley del Régimen Jurídico de El Gran Canal Interoceánico de Nicaragua y de creación de Autoridad de El Gran Canal Interoceánico de Nicaragua" que fue publicada en La Gaceta, Diario Oficial, No. 128 del 9 de Julio de 2012, en adelante referida como "Ley Nº, 800", declara El Gran Canal Interoceánico de Nicaragua de prioridad e interés supremo nacional.

Ш

Que desde la entrada en vigencia de la Ley No. 800, la Autoridad de El Gran Canal Interoceánico de Nicaragua, ha llevado a cabo actividades de promoción y negociación para obtener la inversión de capital necesaria para la ejecución del proyecto de El Gran Canal Interoceánico de Nicaragua y otros proyectos de transporte e infraestructura relacionados.

IV

Que con el propósito de fortalecer el trabajo que la Autoridad de El Gran Canal Interoceánico de Nicaragua ha estado desarrollando, se ha considerado la creación de un instrumento jurídico que contribuya y facilite el LEY ESPECIAL PARA EL DESARROLLO DE INFRAESTRUCTURA YTRANSPORTENICARAGÜENSE ATINGENTE A EL CANAL, ZONAS DE LIBRE COMERCIO E INFRAESTRUCTURAS ASOCIADAS

Artículo 1 Objeto de la Ley

La presente Ley tiene por objeto:

a)Aprobar y autorizar a firmar posteriormente el Acuerdo Marco de Concesión e Implementación, en adelante referido como "El MCA", a suscribirse entre la Autoridad de El Gran Canal Interoceánico de Nicaragua, el Gobierno, la Comisión del Proyecto de Desarrollo del Canal de Nicaragua, la Empresa Desarrolladora de Grandes Infraestructuras S.A., en adelante "El Inversionista" o "El Concesionario" y HK Nicaragua Canal Development Investment Co., Limited, una compañía de responsabilidad limitada constituida en Hong Kong;

 b)Autorizar al Gobierno el cumplimiento y la ejecución de sus obligaciones de conformidad con los términos de ELMCA:

 c)El otorgamiento a El Concesionario de los derechos que confiere El Gobierno en virtud a El MCA; y

d) La definición y establecimiento de las bases y los fundamentos jurídicos necesarios para garantizar el cumplimiento por parte de todas las Entidades del Gobierno de los términos de la presente Ley, incluyendo la creación de la Comisión del Proyecto de Desarrollo del Canal de Nicaragua y el otorgamiento de las concesiones para cada Sub Proyecto, como se dispone en la presente Ley. Una copia de la carta acuerdo junto con el formato convenido de El MCA se adjunta a la presente Ley como Anexo A y ambos forman parte de esta Ley; los términos en mayúsculas de la presente Ley que no estan definidos de otra manera, tendrán el significado establecido en el M&A. Para efectos de esta

THE MASTER CONCESSION AGREEMENT AND IMPLEMENTATION FRAMEWORK WITH NICARAGUA HK INVESTMENT DEVELOPMENT COMPANY, LTD. (HKND)

Law 840 grants to HKND
Concession to conduct studies,
and to promote further
concessions for subprojects.

Fiscal and legal incentives to attract investments to the Canal and subprojects.

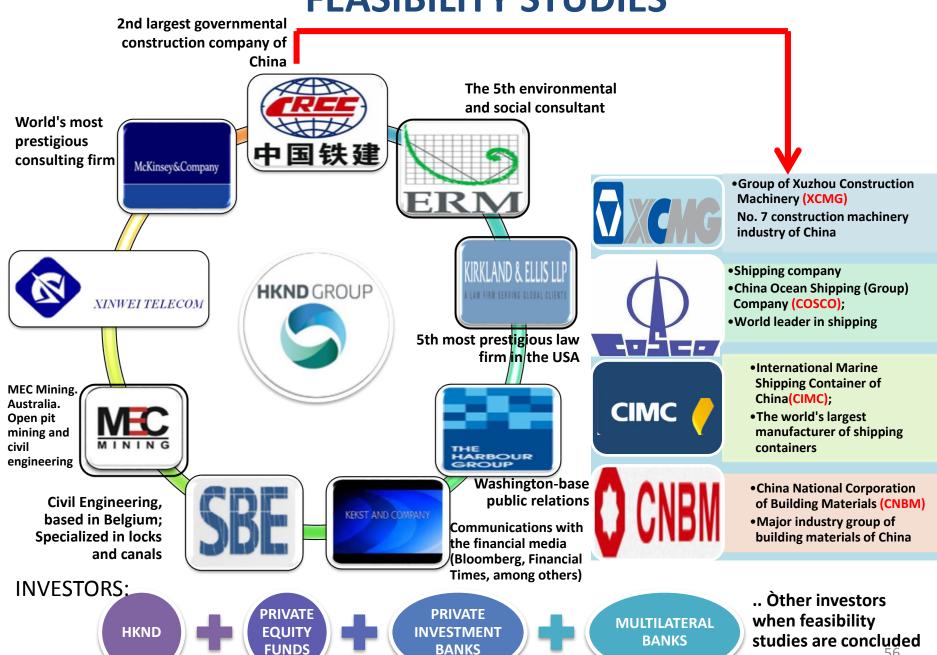
Commission of the Development of the Grand Canal Project will monitor financial and physical execution of each subproject and will issue all environmental permits and construction permits.

Each sub project should have its feasibility studies and a plan approved by the Commission of the Grand Canal Project.

Concession of use for a period of 50 years, renewable for another 50 years.

Nicaragua will start, 1% of shares and shall be increased by 10% its stake in every 10 years. Also receive \$ 100 million in 10 annual payments for the concession.

FEASIBILITY STUDIES



From Financial Times:

"Public face of \$40bn project to boost China-Latin America links"



It is one of the largest proposed infrastructure projects in the world. The feasibility

study alone is set to cost \$900m. And when complete, the Nicaragua Canal, should

The \$40bn project certainly does not lack for ambition. Neither, it seems, does Wang Jing, the public face of the newly-registered Hong Kong company, HKND Group, which this month won approval from Nicaragua's Congress to build and operate the

The approval came despite environmentalist opposition

lower transport costs for shipping oil from Latin America to China.

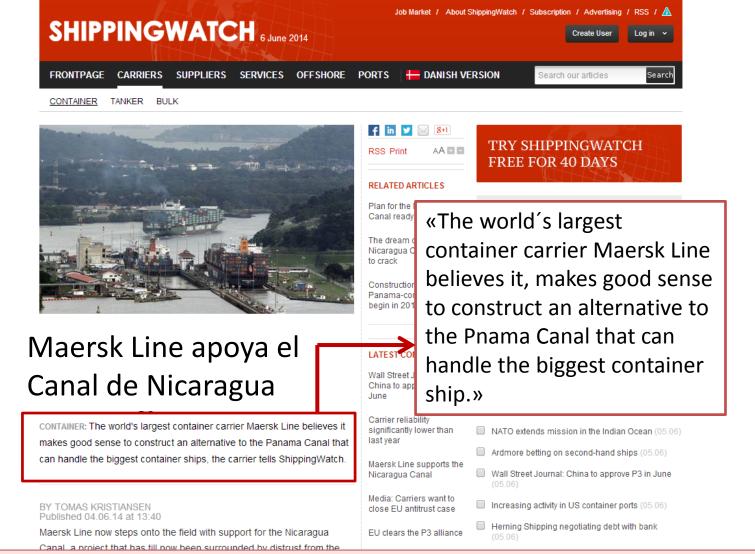
50-year concession to link the country's Atlantic and Pacific coasts.

Islamist

election

"It is one of the largest infrastructure projects in the world. The feasibility study alone is set to cost \$900 million. And when complete, the Nicaragua Canal should lower transport costs for shipping oil from Latin America to China. "

"Right now, 4,000 people, including staff McKinsey, British environmental consultancy ERC the law firm from USA, Kirkland, and research institutes belonging to the CRC, are working on the feasibility study. Mr. Wang said that HKND could cover with its own funds, the operating cost even before the start of



"Building a Nicaragua Canal seems to make sense. The Canal is projected to have room for the biggest ships, while also saving 800 kilometers on a journey from New Yor to Los Alngeles. We generally support infraestructure improvements. It brings opportunities for transport, and therefore trade. When we built container ships 20 years ago were scaled according to the Panama Canal, but, ships today are larger than 4,500 TEU that could fit into the larger ships then. Even after the Panama Canal expansion, larger ships can not fit there, "Keith Svendsen, Head of Operations at Maersk Line daily.



ORGANIZACIÓN DE LAS NACIONES UNIDAS PARA EL DESARROLLO INDUSTRIAL

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FAX: (+43 1) 263 3011

www.unido.org

unido@unido.org

DIRECTOR GENERAL

Viena, 1 de diciembre de 2014

Excelentísimo Señor:

Tengo el honor de referirme a su comunicación del día 12 de noviembre de 2014 solicitando, en nombre del Presidente de la Republica de Nicaragua, Excelentísimo Señor Daniel Ortega Saavedra, el apoyo técnico a la Comisión Nacional Interinstitucional del Gran Canal en las áreas de medio ambiente sostenible, eficiencia de recursos, calidad y certificación de producto, creación de empleo y monitoreo y evaluación de proyectos. La ONUDI estaría otorgando asesoría técnica a este gran proyecto nacional en el marco de su mandato de promover el Desarrollo Industrial Sostenible e Inclusivo (ISID).

Agradeciéndole la confianza en nuestra Organización, es un placer para mí confirmarle el apoyo de la ONUDI a este proyecto. En las próximas semanas la Oficina para América Latina en cooperación con la Oficina Regional de la ONUDI en México y nuestra representante en Nicaragua, Señor Juan Fernando Ramírez, estarán trabajando para la preparación de una propuesta de proyecto de cooperación 2015-2020 para ser sometido en forma conjunta a la consideración de posibles países donantes para su financiamiento.

Aprovecho la oportunidad para reiterar a Vuestra Excelencia las seguridades de mi más distinguida consideración.

78 B

ONUDI is going to provide technical advice to the Commission of the **Grand Canal, in** environmental issues, resource efficiency, quality and certification, employment generation and monitoring and evaluation of projects

CEMEX CONSTRUCTS A NEW PLANT

Construction of a new cement grinding plant in Nicaragua

- ✓ Announced in Monterrey on May 5, 2014
- ✓ cost of US \$ 55 million.

First pahse:

- First half of 2015
- US \$ 30 million in the installation of a cement factory in Ciudad Sandino
- Production capacity of 220,000 tons.

Second phase

- End of 2017
- The installation includes a second grinding mill
- Capacity of 220,000 tons.



Positioning for Central American development pole of the century in Nicaragua.

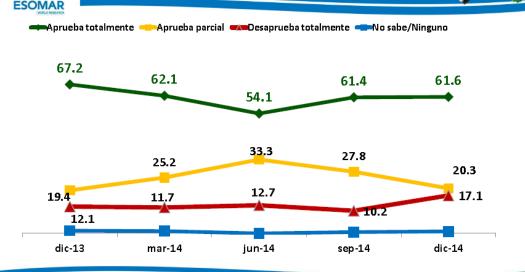
PUBLIC OPINION ON THE CANAL

Monitoring System of Public Opinion(SISMO XLII)



Aprobación o desaprobación al proyecto del posible Canal Interoceánico en estudio actualmente

TENDENCIA



M&R Consultores
Diciembre 2014



CANAL AREA CHALLENGE

All construction projects have an environmental and social cost.

The route has been chosen, engineering choices have been made and the necessary adjustments that minimize environmental and social impact have been decided.

> Mitigation and compensation measures, improving the environment to cause a net positive environmental impact

> > THE GOAL IS A POSITIVE NET ENVIRONMENTAL IMPACT, WHETHER IN THE AREA OF CANAL OR AT THE NATIONAL LEVEL. WITH THE RESOURCES FOR MASSIVE REFORESTATION, WHICH CAN INCREASE THE RESILIENCE OF THE ECOSYSTEMS.

Commitment to increasing the ecosystems resilience



A road linking the port with Tola.

A rock wall will be designed to allow a good mix of fresh and salt water for the mangroves.



Most of the Río Brito and healthy mangroves NOT be affected.

Brito's Mangroves, southward of Canal, remain intact.



West Entrance into Lake (avoid populated areas).

Canal alignment and Airport location will change to avoid impacting Rivas.



Small-scale dredging of the lake by suction (hydraulic)!.

THERE WILL BE NO BLASTING IN THE LAKE

The sand and hard materials will be arranged at along the south side of Route Canal.

Commitment to increasing the ecosystems resilience



The alignment has been changed to the output from the Lake to the east of the Canal, in order to avoid environmentally sensitive areas.



Protection of Indio
Maíz. The Canal acts as
a barrier to the
intrusions of people in
the area.



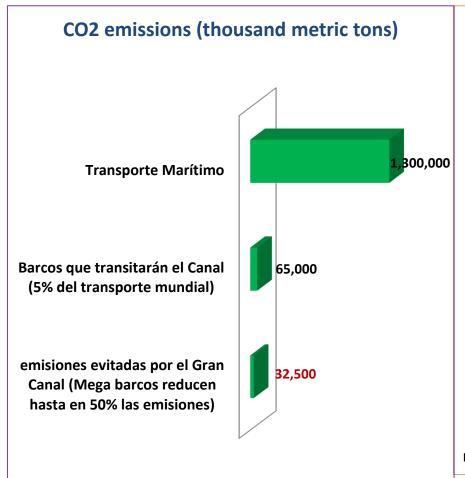
The impact on palm forest in the Caribbean will be minimized.

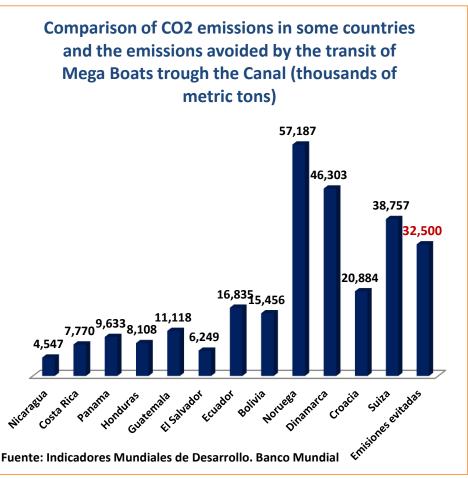


Puerto Águila will be filled with dredged to minimize the impact on Indigenous Peoples.

Canal Route avoids the impact on Booby Cay.

Globally, the construction of the Grand Canal will reduce 32.5 million tons in annual CO2 emissions made by maritime trade worldwide





The avoided emissions are greater than the emissions of the countries of Central America and comparable with those produced by countries like Switzerland

NET POSITIVE ENVIRONMENTAL IMPACT:

On the site of the Canal



Prevent further penetration into Reserves Indian Corn and Punta Gorda

Provide compensation and funding to improve RAMSAR site of San Miguelito.

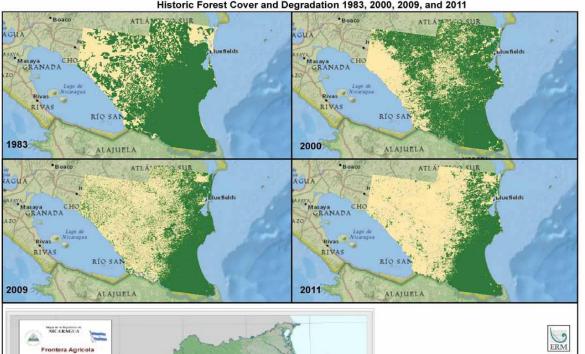
Reverse deforestation trends

Rehabilitation of degraded areas in Indio Maiz Reservations and Punta Gorda and improve watershed management

Provide alternatives and better living conditions



THE CHALLENGE OF AN ONGOING DEFORESTATION



- 25% of the total land area is forested.
- Current rate of deforestation is 70 thousand hectares annually.
- The estimated reforestation of 20 thousand hectares per year.



THE ROUTE OF GRAND INTEROCEANIC CANAL, RUNS THROUGH AREAS WITH DEGRADED SOILS BY THE AGRICULTURE FRONTIER

NET POSITIVE ENVIRONMENTAL IMPACT: NATIONAL LEVEL

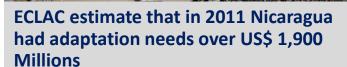




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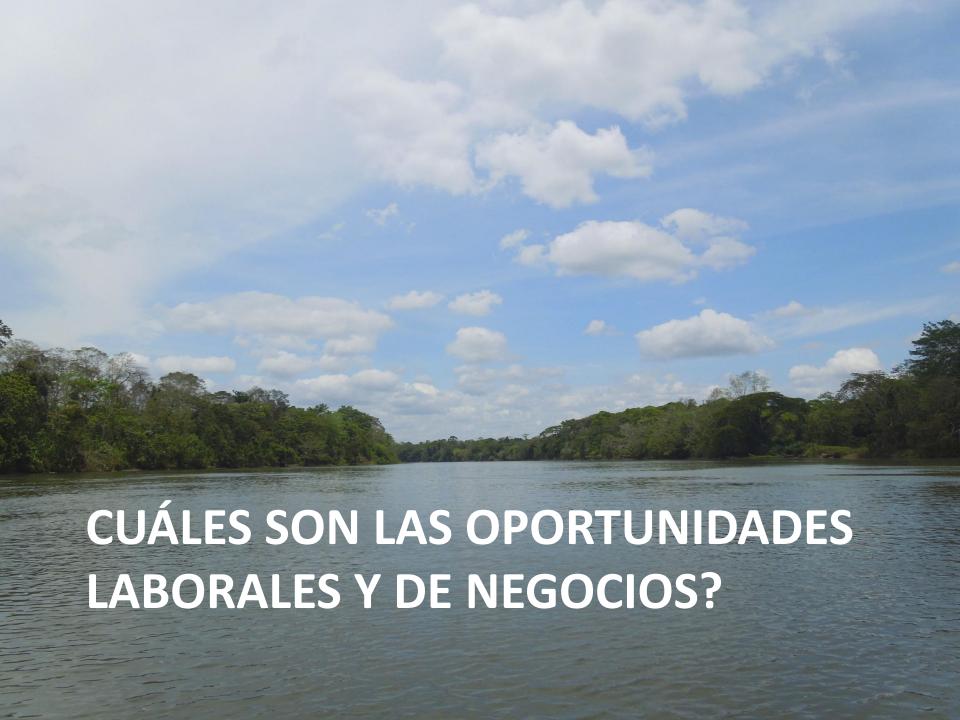
 Protection of local populations from flood or drought.

• Environmental monitoring, climate and integrated health.





The Canal is a water project whose viability depends on water and this on massive reforestation and watershed management.



OPPORTUNITIES

- Opportunities for young Nicaraguans and Central Americans for professional, technical, and skilled formal sector employment in news fields, including:
 - Example 1: Maritime industry
 - Example 2: Regional and world multimodal logistical center



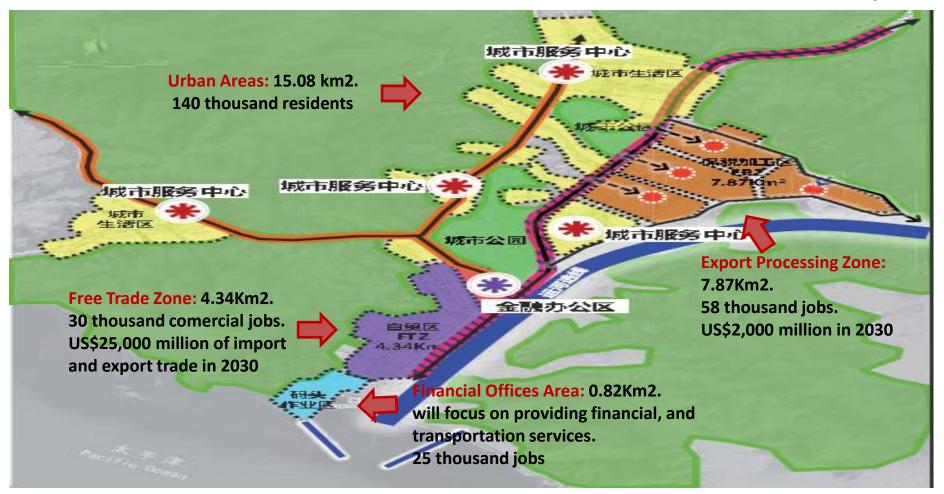




A Free Trade Zone on the Pacific coast (Rivas)

Location: 20 km from the Pan American Highway and Rivas in the east, 120km from Managua in the north, 8km from the tourist complex planned in the south, and 17km from San Juan del Sur, and 16 km from the new airport near Rivas.

4 functional areas: 29.2Km2, 113 thousand jobs





The complex will be:

- Superior Field
 Service lodging
 during project
 implementation
- Tourism destination for Nicaraguans
- 1st world level themed coastal resort in Nicaragua

San Lorenzo
Turistic complex

Touristic Complexes



- 761 villages
- Hotel with 1,400 rooms, and from 1.800 to 2.200 beds
- 3,000 jobs

Power plants, steel and cement, etc.

Sub projects needed to ensure the supply of materials and energy during implementation and operation of the project

It is currently undergoing the feasibility studies

Requirement of building materials

MATERIAL	Año 1	Año 2	Año 3	Año 4	Año 5	Año 6	TOTAL
Cement (10,000 ton)	4.3	25.5	178.2	174.4	112.3	1.2	495.9
Explosives (10,000 ton)	4.2	25.5	35.8	36.2	34.0	2.5	138.2
Steal and corrugated (10,000 ton)	10.4	6.4	22.2	27.0	27.6	1.9	95.5
Coal Ash	0.2	1.5	30.7	30.2	18.0	0.1	80.8
Lubricants	10.4	6.4	22.2	27.0	27.6	1.9	95.4

GREATER OPPORTUNITIES FOR INTEGRATION

- Construction of a Multimodal Logistics Centre for Regional and Global Trade
- Reduction of time and costs of distribution (compared to Miami and Colon Free Zone)





Great need for skilled and unskilled labor



- Professionals
- Skilled and unskilled workers
- Middle and senior technicians
- Specialists

- Improvement and modernization of ports
- Reduction of costs of maritime transport for TM (20-30%) due to EEE ships





Great boost to the construction

- Opportunities for companies in construction and construction equipment and materials
- Opportunities for land and sea transport companies

THE CHALLENGE OF TECHNICAL EDUCATION AND TRAINING FOR THE NEW **ECONOMY Coordination Commission of Public Universities Education and Technical Training Government - Private Sector SOCIAL PARTICIPATION PUBLIC INNOVATION AND ADMINISTRATION ENTREPRENEURSHIP ALIGNED TO THE Private** Ministry of DEVELOPMENT Universities **Education CREATE THE NATIONAL CAPACITIES FOR** THE **TRANSFORMATION OF NICARAGUA CONSTRUCTION MITIGATION AND** AND OPERATION OF **ADAPTATION TO** THE GRAND CANAL **CLIMATE CHANGE** AND OTHER **PROJECTS TRANSFORMATION Public technical** OF CURRENT institutes and centers AGRICULTURAL **Presidency ECONOMY Professional Profiles** Identification of needs

Adjustments to the education system

The multiplier effect of the project: The greatest positive economic, social and environmental impact on the country

Canal construction and complementary infrastructure

Operation and Administration of the World and Regional Logistics Center

Increased investment, trade growth, accelerating growth

Multiplier effect of the Canal from now to 2020

Great formal employment growth

Increased income of Central Government

The Grand Canal: historic opportunity for Nicaragua

The Grand Canal will generate the resources to build the desired development to achieve a prosperous and fairer Nicaragua

- Formal Employment
- Growth of resources for social programs

Overcoming of Extreme Poverty

Increasing resilience of ecosystems

- Climate change adaptation
- massive reforestation
- Recovery of soil and water sources
- Habitat and biodiversity restoration

 Combining economic Independence with political independence already achieved by the FSLN

Construction of economic independence

