

Enrico L. Basilio



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Foreword



Because of our geography and topography, we had become a nation of many sub-cultures and dialects. Often, many of us met each other in distant shores during our quest for gainful employment. We can now overcome these handicaps and build a more competitive nation from this diversity by way of the RO-RO bridges that interconnect our National Highway System.

The author has captured these developments in photos that depict how new facilities have sprouted in all the routes

where the Strong Republic Nautical Highway system have linked our shores. What is truly amazing is the fact that not only do the connecting ports develop but also all the towns and cities traversed by our National Highway System.

Most initiatives inherently begin at home. While we seek to attract tourists from abroad, we expect our own countrymen to take advantage of the easier travel, to introduce them not only to the thousands of scenic spots but also to opportunities for doing business and making investments that will find their way into these photos.

History has shown that the travel adventure can sprout into many other activities. Many countries have developed on this basis, beginning with tourism, graduating into trade, and finally maturing into significant investments. The RO-RO system replaces what used to be done by the smaller "batels" that have served some of our earlier entrepreneurs now tycoons.

I know that this work will make it more inviting and easier for you to plan and packup for your next inter-island adventure, this time with your family "on wheels."

Happy motoring and happy sailing.

Meneleo J. Carlos, Jr. Chairman National Competitiveness Council Infrastructure Working Group

Linking the Philippine Islands



Summary

- To reduce the high cost of transporting goods from Mindanao to Manila, President Gloria Macapagal-Arroyo issued Executive Order 170 in January 2003. The EO defined the roll-on/roll-off (RO-RO) transport policy. Amendments and memorandum circulars were later on introduced and aimed at improving and strengthening the policy.
- The goal is to establish an integrated national highway system consisting of both road and nautical networks. The system would promote and facilitate seamless movement of people and goods from Mindanao to Luzon through the Visayas.
- To date, the Strong Republic Nautical Highway (SRNH) consists of the Western and Eastern nautical networks as well as lateral RO-RO links that provide eastwest connections. Soon to be completed is the Central nautical highway that will connect Luzon and Mindanao through the island provinces of Masbate, Cebu, Bohol and Camiguin.
- In only five years since its establishment, the SRNH has delivered much of its promised benefits. These benefits include reduced transport cost, increased regional trade, enhanced tourism and agricultural productivity, growth in investments, and development in the countryside as well as poverty reduction. Indeed, SRNH has deserved to be a major legacy program of President Gloria Macapagal-Arroyo.
- With the RO-RO policy in place, the remaining work focuses on policy enhancements as well as further expansion of the SRNH network.

Linking the Philippine Islands

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obility &

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Pinagdugtong-dugtong na Kapuluan, Daan Tungo sa Kaunlaran





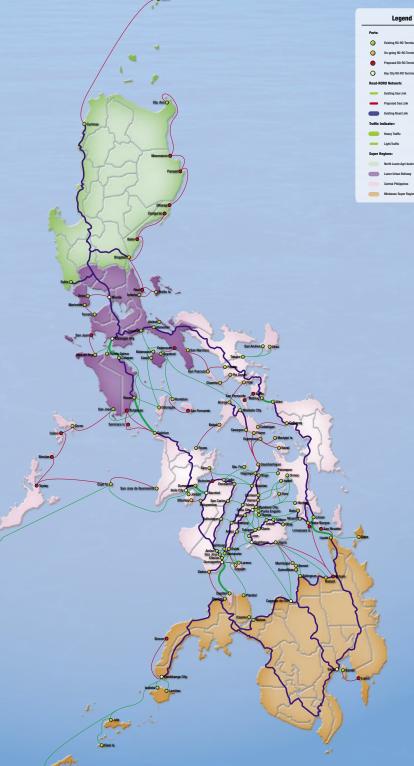
via the Western Nautical Hig at by as much as 45%





2 The Asia Foundation





RAMDAM ANG KAUNLARAN



Linking the Islands

Marcelo Fernan Bridge

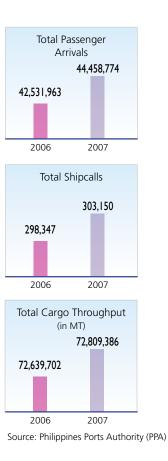
Islands that are near each other are joined together by a bridge. However, those that are farther apart are now connected by "moving bridges" called RO-RO ships.

The Philippine archipelago consists of more than 7,100 islands and islets. Endowed with beautiful sceneries and natural resources, the accessibility of the islands as well as mobility within the islands is the primary goal of infrastructure development.

Like the various pieces of a jigsaw puzzle that must be locked together, these islands need to be linked efficiently by a seamless transport infrastructure network – providing inter-modal land, air and sea transport systems that form an integrated national highway.

As the economy grew to its highest level in recent years, inter-island trade followed the same uptrend. Tourist arrivals breached the 3 million mark. Total inter-island domestic cargo and passenger traffic in 2007 shipped by sea reached 72.8 million metric tons (MT) and 44.5 million, respectively. Increasingly, RO-RO shipping has facilitated much of the traffic.





RO-RO Ships as "moving bridges"

Two islands that are, distance-wise, near each other can be linked together by constructing a bridge. And in order to recover the investment made in the construction and/or maintenance of the bridge, toll gates may be put up at both ends of the bridge whereby "toll" fees may be collected. Under the "toll" system, the bridge is considered an integral part of the road network. The "toll" fee is based on the classification of the vehicle passing through, regardless of whether it is loaded with either cargoes or passengers.

Linking the Philippine Islands



Caticlan Jetty Port Source: PPA

Assuming that the islands to be connected are farther apart such that it becomes impossible or very costly to construct a bridge similar to the San Juanico bridge, then what can be employed is a RO-RO ship which will serve as a "moving" bridge.

Various studies (JICA, USAID, Shipdeco) recommended the extensive use of RO-RO shipping as the most appropriate mode of sea transport for linking the country's various islands. Considering the archipelagic configuration of the Philippines, any sheltered cove can be considered as a natural RO-RO terminal.

Crafting the RO-RO Policy

During the various conferences held in Mindanao in 2002, one of the persistent issues raised by the shippers was the high cost of transport from Mindanao to Manila. Among others, Roll-on/roll-off (RO-RO) shipping was proposed as a solution to the transport problem. RO-RO shipping would answer the clamor of the business community for greater efficiency and lower cost in the inter-island transport of goods. It would be consistent with the President's 10-point Agenda to promote "decentralization of progress around the nation through the use of transportation networks". President Gloria Macapagal-Arroyo issued **Executive Order No. 170** on January 22, 2003 defining the RO-RO shipping policy. In a nutshell, the objectives of the RO-RO policy are:

- To reduce transport cost from Mindanao to Luzon, through the Visayas, specifically the cost of inter-island transportation through the establishment of a safe, efficient and cost-effective Road Roll-On/Roll-Off Terminal System (RRTS);
- To enhance tourism, transportation and commerce throughout the country;
- To facilitate the government's agro-fisheries modernization and food security programs;
- To promote private sector participation in the establishment, construction and operation of RRTS facilities; and,
- To establish a new policy to promote the development of RRTS.



The SRNH is designed to complement the existing PPA port system and to offer the shippers an alternative mode of sea transport. Hence, it was not designed to replace the lift on/lift off (LO-LO) system of port operation, as there are cargoes that would still require the traditional LO-LO method of handling and transport. For purposes of clarity, EO 170 defines the road-RORO terminal system (or SRNH) as the network of RO-RO ferry terminals linked all over the country by RO-RO ferry ships.

Salient features of EO 170

As an integral part of the national highway system, the nautical networks are not burdened by any costs and procedures that are not required in land-based transportation systems. Specifically, EO 170 highlights the following advantages:

- No cargo handling charges (since RO-RO shipping deals with rolling cargoes)
- No wharfage dues
- Freight based on lane meter
- Toll fee consisting of freight, berthing, terminal and passenger fees
- Simplified documentary requirements
- Waiver of port authorities' share in port revenues (limited to annual registration/supervision fee)
- Privatization of public RO-RO ports
- Minimum permit requirements in port construction and operation
- Available financing from the Development Bank of the Philippines (DBP)

Policy Enhancements

In June 2003, President Arroyo issued **EO 170-A** lifting the 50-nautical mile limit initially imposed on all RO-RO routes. This amendment practically declared any route within the entire country eligible for RO-RO operations.

Another policy refinement was introduced in September 2005 when President Arroyo issued **EO 170-B** allowing the conversion of private non-commercial ports into commercial ports under the RRTS. This was designed to fast-track the expansion of the RRTS through the inclusion of the private ports into the system.

For its part, the Philippine Ports Authority (PPA) issued several Memorandum Circulars (MCs) promoting the RO-RO service. The first circular was issued in November 2003 (**PPA MC 17-2003**) prescribing the applicable RO-RO tariff rates (terminal fees) for the initial ports/routes covered by the Strong Republic Nautical Highway (SRNH), namely: Manila – Batangas – Mindoro (Calapan – Roxas) – Panay (Caticlan – Iloilo) – Guimaras (Jordan – San Lorenzo) – Negros (Pulupandan – Dumaguete) – Mindanao (Dapitan).

VEHICLE TYPE	DESCRIPTION	TERMINAL FEES *
Type 1	Motorcycle, tricycle, scooter	P 50.00
Type 2	Car, Minivan, SUV, AUV, Owner, Jeep, PUJ (up to 16 passengers)	P 100.00
Type 3	Light delivery van, pick-up truck, PUJ (more than 16 passengers)	P 200.00
Type 4	Stake truck, heavy delivery truck, Passenger-Tourist bus, Prime Mover, Tractor Head (with or without trailer/chassis)	P 400.00

RORO Terminal Fees

* Rates exclusive of 12% VAT. Source: PPA



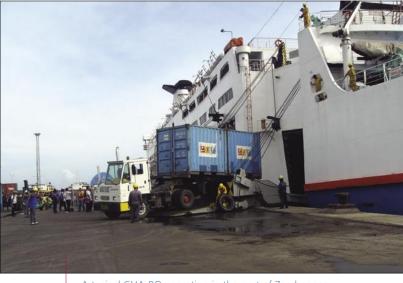
A year later, the PPA issued three circulars expanding the application of RO-RO Terminal Fees to include other PPA ports where RO-RO operations are carried out (**PPA MC 23-2004**) and new routes designated as part of the SRNH – i.e., Batangas – Mindoro (Puerto Galera); Mindoro (Calapan – Puerto Galera); Mindoro (Roxas) – Romblon; Mindoro (Pola) – Marinduque (Balanacan); Mindoro (Apo Reef, San Jose) – Palawan (Puerto Princesa) (**PPA MC 29-2004**). The use of color-coded cash tickets to simplify the processing of Terminal Fee payments was also set forth (**PPA MC 25-2004**).

To encourage greater private sector participation in the RRTS, Department of Transportation and Communications (DOTC) Secretary Leandro Mendoza directed the port authorities to take concrete steps to progressively privatize public-owned RO-RO ports. In December 2004, the PPA issued Administrative

Order (AO) 03-2004 defining the guidelines on the development, construction, management and operation of RO-RO terminals under the RRTS. In December 2007, the PPA announced that the port authority is "putting on the auction block all ports under the SRNH, including Caticlan, to make them more efficient."

Upon the recommendation of the NEDA Board – Regional Development Committee, Department of the Interior and Local Government (DILG) Secretary Ronaldo Puno issued **Memorandum Circular No. 2006-70** in June 2006. The MC directed local government executives to refrain from enforcing any existing ordinance that authorizes the levy of fees and taxes on inter-province transport of goods, regulatory fees from passengers in local ports and other additional taxes or charges in any form upon transporting goods and passengers. He likewise ordered the immediate repeal of ordinances imposing such illegal fees and taxes.

With the main RO-RO policy in place, the remaining work focuses on policy enhancements as well as further expansion of the SRNH network. The DOTC Inter-Agency RO-RO Committee approved, for endorsement to President Arroyo, the issuance of an Executive Order that designates all roads that form part of the SRNH as "national roads". This intervention is designed to improve the development and maintenance of roads forming the national highway, eradicate illegal imposition of toll fees, as well as increase the participation of DPWH in the strategic development of road networks that will further expand the SRNH system.



A typical CHA-RO operation in the port of Zamboanga

Another policy recommendation is the inclusion of the chassis-RORO (CHA-RO) operation as part of the RO-RO service. This intervention is designed to reduce the domestic transshipment of export and import cargoes. It will also dovetail existing measures – such as discounted wharfage and scanning fees – that cushion the impact of peso appreciation on exports as well as enhance the country's competitiveness.

The DOTC and PPA are fast-tracking the development, rehabilitation and upgrading of RO-RO ports/terminals especially those that will complete the Central Nautical Highway as well as those that are part of the President's SONA (State of the Nation Address) commitments. DOTC is also coordinating with the Department of Public Works and Highways (DPWH) on the provision of roads that would provide inter-modal connectivity. Finally, DOTC and PPA are likewise working together in formulating the terms of reference that will govern the effective and immediate privatization of public RO-RO ports and terminals.

RO-RO Port	Location
Cawayan Port	Cawayan, Masbate
San Antonio (Pilar)	Pilar, Šorsogon
Aroroy	Aroroy, Masbate
Esperanza	Esperanza, Masbate
Claveria	Claveria, Burias Island, Masbate
San Pascual	San Pascual, Burias, Masbate
Pantao	Pantao, Albay
Sibunag	Sibunag, Guimaras
Santander	Cebu
Siquijor	Siguijor
San Remigio	Cebu
Jagna	Jagna, Bohol
Ubay	Ubay, Bohol
Limasawa	Limasawa, Leyte
Maripipi	Maripipi, Biliran
Balbagon	Mambajao, Camiguin
Salomague	llocos, Sur
Irene	Cagayan Valley
Dingalan	Aurora
Real	Quezon
SBMA	Zambales
Lucena	Quezon
Воас	Marinduque

2006 SONA RO-RO Ports

Source: 2006 State of the Nation Address (SONA)

Linking the Philippine Islands



New passenger terminal building being constructed at the Port of Calapan in Mindoro Oriental.

Investing in the SRNH

There are basically three (3) types of potential SRNH investors:

• **Private**. The private investor (all persons, partnerships, corporations, firms and entities) invests in both the construction of the RO-RO terminal/s and acquisition of RO-RO vessels. The private investor may infuse his own funds into a project or may avail of an SLDP loan from the Development Bank of the Philippines (DBP).

• **Public**. LGUs may invest, particularly, in the construction and operation of RO-RO Terminals. The LGU may utilize its internal

revenue allotment (IRA) for the construction of the RO-RO terminal or may also elect to avail of a long-term loan from the DBP or any of its participating financial institutions (PFIs).

Private Sector-LGU Partnership. The LGU, in partnership with the private sector, may invest in the construction and operation of a RO-RO terminal by way of a joint-venture or BOT arrangement. In general, the roles of the LGU are: (a) To ensure that there are policies to promote and support the RRTS-SRNH at the municipal level; (b) To participate, either directly or indirectly in the RRTS (e.g., terminal construction and operation); (c) To provide infrastructure support like access roads, and (d) To maintain peace and order.

For joint-venture

- The LGU may provide any or all of the following: land as site for the RO-RO terminal, "goodwill", and/or access road;
- The private partner, on the other hand, may: (a) finance (using own private or borrowed funds), (b) undertake the construction, and/or (c) operate the RO-RO terminal.

Under BOT scheme (for RO-RO terminal construction)

- The LGU may provide land as site for the RO-RO terminal.
- The private proponent will finance (using own private or borrowed funds) the construction of the RO-RO terminal. The private proponent will be allowed to operate the RO-RO terminal until such time that the proponent has recovered his investment.



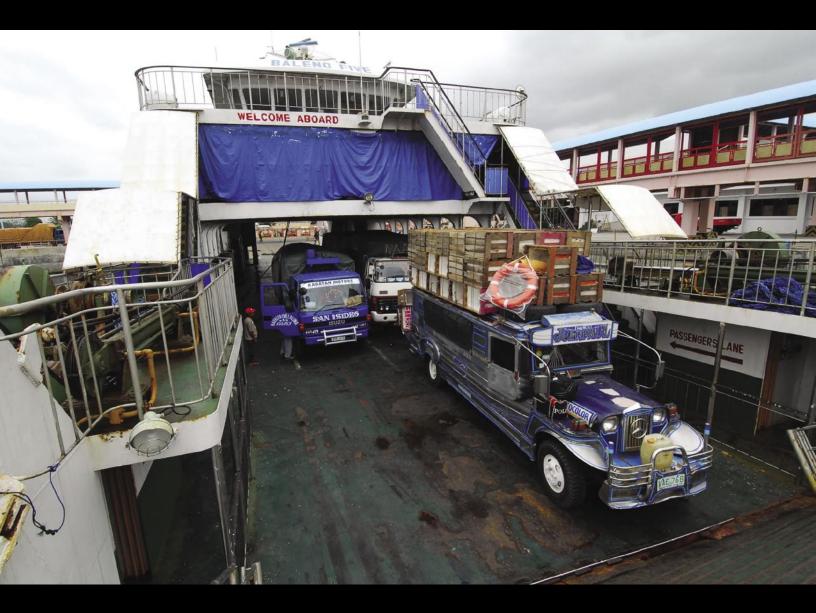




Interested investors, whether private or LGUs, can choose from any of the following SRNH investment modalities:

- Integrated Investment in RO-RO Link(s). This includes the construction, development and operation of the Terminals (origin and destination) as well as the acquisition and operation of the RO-RO ship.
- Investment in RO-RO Terminal(s). This includes the construction, development and operation of a RO-RO Terminal(s).
- Investment in RO-RO Ship(s). This includes the acquisition and operation of RO-RO vessel(s) to service the RRTS routes.

Linking the Philippine Islands





ITS IMPACT ON ECONOMIC GROWTH AND Development in the countryside

In 2003, we introduced the RO-RO from Zamboanga del Norte through Negros, Panay and Mindoro to Batangas. This system has slashed travel time from Mindanao to Luzon from 36 hours to 24 hours, and freight cost by 30%, so crucial to food shipments. **This is one legacy I'd really like to leave behind**.

-President Gloria Macapagal-Arroyo

The Strong Republic Nautical Highway (SRNH) consists of two main trunk lines – the western and eastern nautical highways. To be inaugurated end of April (2008) is the last major line – the central nautical highway. There are also lateral RO-RO links that provide east-west connections.

Today, there are 68 existing RO-RO routes being served by 49 RO-RO shipping companies operating more than 250 RO-RO ships. Some routes with substantial traffic are served by two or more RO-RO operators. Examples of these routes are Batangas-Calapan, Roxas-Caticlan, Dumangas-Bacolod, Dumaguete-Dapitan, Matnog-Allen, Liloan-Lipata and Cebu-Cagayan de Oro. The number is expected to further increase with the expected completion of the SONA ports in 2008.

Linking the Philippine Islands



The first comprehensive SRNH Map was unveiled on March 14, 2008 during the 3rd Infrastructure Forum in Davao by PMS Secretary Cerge Remonde, USAID Mission Director Jon Lindborg, Asia Foundation Representative Steve Rood and Meneleo Carlos, Chairman of the National Competitiveness Council – Infrastructure Working Group.

Majority of the RO-RO ports and terminals that comprise the SRNH are public ports – developed and owned by port authorities like the Philippine Ports Authority (PPA), Cebu Ports Authority (CPA) and Regional Ports Management Authority (RPMA). In recent years, private sector and local government (LGU) participation in the SRNH are growing.

· · · · · · · · · · · · · · · · · · ·	
Туре	Number
Base	18
Terminal	55
Municipal	17
Private	6
TOTAL	96

Number of RO-RO Capable Ports (2007)

Source: PPA

In terms of financing, the DBP has available credit facilities to fund port development and acquisition of RO-RO ships. This is in keeping with DBP's commitment of improving transport logistics in the country. In 2006, DBP reduced its lending rate and liberalized the loan collateral requirements by removing REM (real estate mortgage). This means that the RO-RO ship alone serves as collateral (chattel) provided that it is brand new or classed.

A recent development is DBP's acquisition of the NDC Maritime Leasing Corporation (NMLC). NMLC is a government-owned and controlled corporation (GOCC) and a subsidiary of the National Development Company (NDC). It is mandated to engage, transact or deal in the finance leasing business for all kinds of maritime ships, and equipment, machinery and facilities ancillary to maritime business in all its aspects

such as (but not limited to) sale-leaseback arrangements, hire-purchase agreements and other financing schemes. This is a positive development for the market as two financing options are made available – loan and leasing.

The impact of SRNH on the economy varies. It ranges from area development to the promotion of regional trade and agro-tourism.



Area Development

Infrastructure development serves as a catalyst for the growth and development of an area. In the whole context of SRNH, the development that the municipality of Roxas in Oriental Mindoro experienced, stands out. Previously a laid-back town, the Municipality of Roxas got the needed boost of economic energy with the introduction of RO-RO in 2003. The development of a small RO-RO port and its inclusion in the Western Nautical Highway created a lot of opportunities for the thriving municipality. The sleepy hollow turned boomtown is fast urbanizing and is a bustling haven of commerce and ecotourism.

A year after the Port of Dangay became operational, business within and outside the port had been brisk. Commercial strips are found along Morente Avenue leading to Odiong; Magsaysay Avenue to Leuterio Drive, and to J.P. Rizal; and along Magsaysay Avenue to Dangay junction leading to Dangay Port all the way to Cantil. New commercial establishments mushroomed – appliance stores, retail outlets, drugstores (Mercury Drug), water-filling stations, restaurants and eateries, banks, pawnshops and transport terminals. Three (3) new hotels (LYF, N&N Seaport and RL Hotel) were erected. Due to increased vehicular traffic, the number of gasoline stations increased from two to seven. Eateries for the hungry travelers proliferate in the port area. Fastfood chain Jollibee made a debut in Roxas. To date, there is a total of 879 business establishments operating in the municipality, a 15% jump from the previous year's 753. Since 2003, investments in Roxas have been estimated to exceed P100 million. These investments generated more than 2,000 jobs and increased business and property tax collections.

Restructuring of the Inter-island Shipping Industry

The RO-RO policy has introduced changes in shipping operations and port administration. Port charges and documentation requirements were reduced and simplified, commodity classification no longer applies to RO-RO cargoes, freight rates are now based on lane-meter, and cargo handling and wharfage have been eliminated.

Some of the investments made in Roxas, Oriental Mindoro as a result of SRNH.

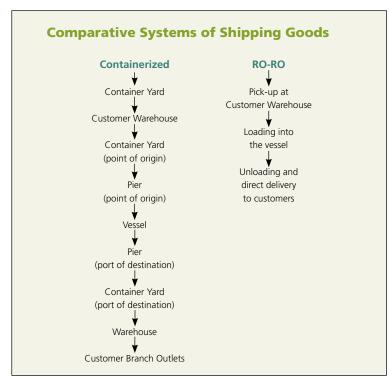


Finally, private sector participation and investment in the SRNH have been unleashed – both in the operation of RO-RO, development of RO-RO terminals, and/or operation of a RO-RO link.

The advent of RO-RO, which provided an alternative mode of transport to the market, heightened the level of competition within the domestic shipping industry. As a result, existing players restructured their operations to take advantage of the opportunities brought about by this market development. Aboitiz Transport Service (ATS), for instance, launched its 2GO service. ATS claims that this service is a superior and yet simple,

self-driven service that gives control to the shipper as to the movement of his goods. RO-RO cargoes are given priority in loading – resulting in faster delivery lead time and reduced costs. The new 2GO service reduces transport and logistics activities from nine to only three steps – improving delivery lead time from an average of nine days to three days. Freight is also based on lane meter (the actual space occupied by the cargo in the ship). Main drivers of transport cost reduction include efficiencies in the total supply chain cycle (upstream and downstream), less handling of cargoes, reduced product damages (less claims), reduced cost arising from improved inventory management (20% savings), reduced warehousing cost, and elimination of auxiliary costs (5% savings)

In 2006, major liner shipping companies sold some of their ships to rationalize their operations and improve profitability. ATS partnered with Maersk Line and introduced bigger ships to realize economies of scale. As a result, net income grew by 130%, with income from RO-RO contributing much of the profit.



Source: ATS RRTS - 2GO Presentation

Some of the leading RO-RO operators are Phil Harbor, Lite Shipping, Montenegro Shipping, Starlite Ferries, Trans Asia Shipping Lines, and Allison Shipping. These operators are providing services in major SRNH RO-RO routes.

Reduction in Transport Cost

Based on a study done by the Center for Research and Communication (CRC) in 2006, transporting goods via the Western Nautical Highway is cheaper compared to conventional shipping. For example, transporting fresh fish from Capiz, Iloilo and Estancia to Manila is now economical with RO-RO. Fish traders claim they are better off with the multi-trip schedules of RO-RO service compared with the limited daily schedules of big liners. Instead of shipping at the same time, fish traders can now schedule their shipments properly.

Raw materials used in the manufacture of semiconductors are now being shipped to Cebu via the Western Nautical Highway and the San Carlos-Toledo lateral connection. Motorcycles are also efficiently transported from Manila all the way to Dumaguete - the motorcycle capital of the Philippines. Lastly, walk-in passengers still find RO-RO cheaper than fastcrafts especially if they are not in a hurry to reach their destination.

Type of Commodity	Traditional Shipping	RO-RO Shipping	Savings	Percentage
Fresh Fish (From Capiz, Iloilo, Estancia to Manila)	20,000	14,000	6,000	31%
Electronics (Raw mats.) (From Manila to Cebu)	26,000	14,000	12,000	46%
Motorcycles (From Manila to Dumaguete)	95,000	50,000	45,000	47%
Passengers (From Batangas to Calapan)	220 (fast craft)	150	70	32%

Comparative Cost of Domestic Shipping – Traditional vs RO-RO via the Western Nautical Highway (In Pesos)

Source: Basilio et al. "Assessing the Economic Impact of RO-RO" (CRC, 2006)

These transport savings from RO-RO emanates from service efficiency as well as the fact that RO-RO service is not saddled by costs embedded in conventional shipping such as cargo handling and wharfage. Since the promulgation of the RO-RO policy in 2003, the annual rate increases in cargo handling rates came to a halt, except the one in 2006, which was a result of increasing oil prices. Overall, the incentive to increase the cargo handling rates disappeared with RO-RO. To increase cargo handling will simply make traditional shipping more expensive than RO-RO shipping.

Domestic Cargo Hand	dling Rate Increases	
Year	Arrastre	Stevedoring
1998	12%	40%
1999		
2000	10%	10%
2001	10%	10%
2002		
2003		
2004		
2005		
2006	15%	
2007		

Source: PPA

21



Source: ATS

In the case of 2GO agricultural commodities such as fruits (bananas, durian, pomelo, mangoes and lanzones), vegetables (carrots, potatoes and tomatoes) and fresh fish being shipped from Mindanao (coming from Davao, Cagayan de Oro, General Santos, Zamboanga) to Manila via RO-RO benefit from net savings of 33% compared with the traditional mode of shipment. Based on ATS surveys among its RO-RO clients, the results indicate a rather high net rating for customer satisfaction.¹

Compared with other modes of transport (air, traditional shipping), transport of people on the long haul (distance) remains to be competitive via RO-RO.

Manila – Iloilo	2007 Rates	2008 Rates		
Liner Shipping lowest rate without meals; highest rate with meals, cabin accommodation 	P 2,382 – 3,664	P1,791 - 2,257		
Road-RO-RO Shipping • Bus rate: low (non-aircon); high (aircon)	P 1,220 – 1,420	no change		
Air Transport • Economy class. Booking made two days before scheduled flight	P 2,200 – 3,893	P1,513 - 3,101		

Price Comparison among Modes of Transport

* Prices (in pesos) are one way and include all fees and surcharges

Change in Logistics Operations and Strategy

The reduction in cost coupled with efficiency caused the shift in the way shippers transport their goods throughout the country. For instance, RO-RO enabled Nestle Philippines, a leading food conglomerate, to close down 33 of its 36 distribution centers nationwide. With RO-RO, Nestle is able to make small, frequent and direct deliveries to its clients – thus minimizing the need for inventories.

Universal Robina Corporation (URC), another food manufacturing company, has been transporting its products via RO-RO from its plant in Ugong, Pasig to the rest of the country. From one shipment a week (via liner shipping), delivery trucks are now making 12 trips a day through the SRNH.

¹ This is based on a report submitted to the Department of Agriculture.

A new business philosophy for bus and trucking operators

With the expansion of market coverage, the trucking industry is undergoing major transformation in the manner by which it conducts business. From a highly dependent shipper-client type of operation, the trucking business is expected to evolve into an entrepreneur/marketing-based type of economic activity where the truckers actively look for the products to move within and among islands.

In the case of bus operations, the routes within the Western Nautical Highway were initially divided into two sections – the first section covers Manila up to Iloilo while second section covers Iloilo all the way to Zamboanga. Iloilo and Bacolod serve as the mid point for the entire highway. However, starting May of 2007, Ceres fielded buses that traverse the entire length of the western nautical highway (from Manila all the way to Mindanao). For the Eastern Nautical Highway, trips from Manila usually terminate in Davao. Major bus companies operating in the SRNH include Ceres, Philtranco, Alps, Bachelor, Gassat, Silver and Dimple Star.

Bus Routes	Number *
Manila-Iloilo	36
Manila-Caticlan	19
Manila-Estancia	6
Manila-Aklan	19
Manila-Antique	29
Manila-Sorsogon	16
Manila-Samar	14
Manila-Biliran	7
Manila-Leyte	13
Manila-Southern Leyte	21
Manila-Ubay, Bohol	2
Manila-Davao	6
Manila-CDO	2
Manila-Zamboanga	1
TOTAL	201

Number of Long Distance Bus Service per Route, 2007

Fresh fish being loaded unto a truck for shipment to Navotas from Estancia (Iloilo) via RO-RO.



Increased Agricultural Productivity

There is double counting since some bus lines have multiple destinations utilizing the same bus

Source: JICA Feasibility Study on the Development of RRTS for Mobility Enhancement in the

(e.g., the bus bound for Iloilo passes through Aklan)

Philippines (2007)

The opening of SRNH, particularly the Western Nautical Highway, opened up new markets for farmers. In San Jose, Occidental Mindoro, for example, farmers who used to sell their produce (e.g., onions) in Manila reached new markets after the Western Nautical Highway was opened. Fruits from Davao (mangosteen and durian) also found new markets in Iloilo and Bacolod.

This development encouraged farmers to increase their production to take advantage of the opportunities for increasing their income. Interviews with trader-shippers indicate that some of the vegetable shipments to Caticlan and lloilo originate from Baguio. Similarly, shipments to Manila of fishery products from Estancia, dubbed as the "Alaska of the

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s catalyst for area development, the Nautical Highway offers various economic opportunities to families. Increasing regional inter-island trade benefit the smallest Filipino.



Philippines", have also increased from once a week (using traditional shipping) to daily shipments via RO-RO.

The trade pattern creates a triad of zones/ areas for inter-trading along the Western SRNH. The Manila – Mindoro – Iloilo zone (MMI) in the northern end of the Western SRNH, Zamboanga – Cebu – Negros zone (ZCN) in the Southern end of Western SRNH and the Iloilo – Negros – Cebu zone (INC) in the Central stretch of the Western SRNH.

With RO-RO, farmers can now directly transport their produce to regional markets.

Enhanced Tourism

The potential of tourism in various areas along the western seaboard is large. RO-RO infrastructures have largely boosted the growth of tourism in several areas along the route. For example, Dangay Port in Roxas, Mindoro Oriental serves as a springboard to the world-renowned Boracay Islands in Aklan. Domestic and foreign tourists coming from Puerto Galera proceed to this popular beach resort via Dangay Port, and vice-versa. Investors may have seen a lot of promise in the sector as evidenced by a coterie of beach resorts that have mushroomed along the coastline of Roxas.

In the same way, Caticlan serves as a jump-off point to Panay Island, and even farther down to Negros Island passing the Iloilo-Bacolod route with greater accessibility and affordability. The Dumaguete-Dapitan link also gives more opportunity to visit Mindanao's tourism gems (e.g., Rizal's Shrine, Gloria de Dapitan and Dakak Resort Hotel in Dapitan City in Zamboanga del Norte).

The impact is reflected in the dramatic surge of tourist arrivals in these areas. From 2003 to 2006, tourism receipts in Boracay Island grew by more than 50%, in Iloilo by 30%, in Bacolod by 15%, and in Dapitan by 200%.

With the completion of the Central Nautical Highway, the Cebu-Bohol-Camiguin tourism loop will surely provide a dramatic boost in these provinces.

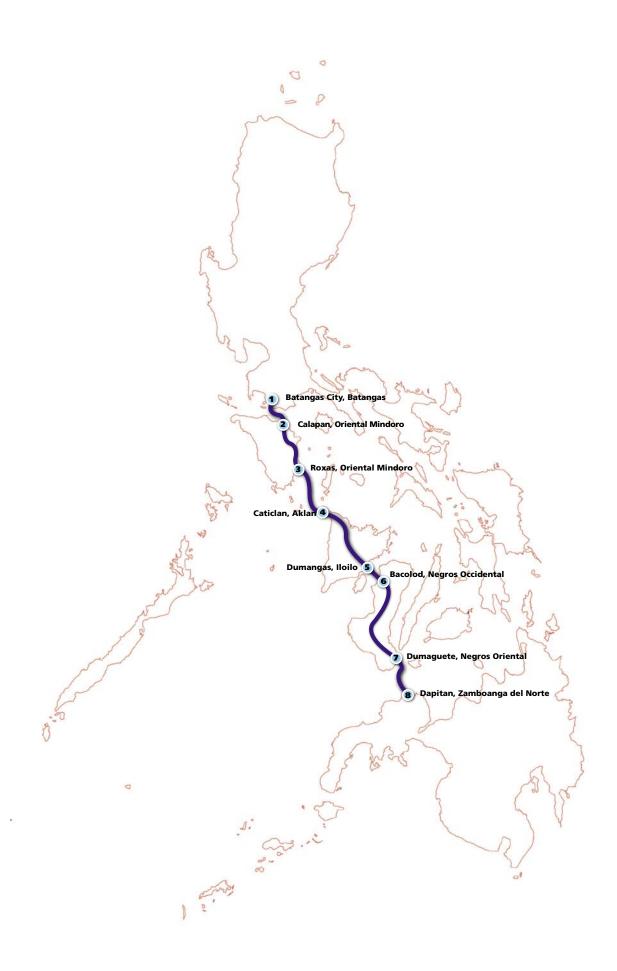


Balay Negrense



Gloria de Dapitan, Zamboanga del Norte

Linking the Philippine Islands



The Western Nautical Bighway

The Western Nautical Highway bridges Luzon and Mindanao through the major islands of Mindoro, Panay, Guimaras and Negros – with the Port of Batangas serving as Luzon's gateway to Visayas and Mindanao.

On March 31 to April 1, 2003, President Arroyo led the first RO-RO caravan from Manila to Dapitan, Zamboanga del Norte via the Western Nautical Highway – covering a total of 703 kilometers and 137 nautical miles of land and sea travel.



Source: OP Malacañang Photo Section - NIB

To date, there are six bus lines, 51 buses, 35 RO-RO ships and numerous trucking companies plying the Western Nautical Highway. While most of the RO-RO ports and terminals are public-owned, there is a number of privately developed and operated RO-RO ports like Bredco in Bacolod and Barcelona Port in Escalante, Negros Oriental. A new RO-RO port is being developed in Dapitan, adjacent to the PPA port, by a private joint-venture company called DIPCI (Dapitan Integrated Port Complex, Inc.). The RO-RO port development includes cold chain and grains bulk-handling facilities.

Linking the Philippine Islands



A growing number of passengers traveling by RORO.



Average Filipinos avail of RORO services.



Even foreign tourists take interest in RORO.



Feast on your favorite instant cup noodles on-board the RO-RO ship.



Manila to Batangas Port (Land Travel)

From Manila to the Port of Batangas, land travel through the South Luzon Expressway (SLEX)² and Southern Tagalog Arterial Road (STAR Phase 1)³ takes about two and a half hours for the total stretch of 120 kilometers.

The CALABARZON region⁴, which includes the Provinces of Cavite, Laguna, Batangas, Rizal and Quezon, houses 15 industrial estates and science parks and an export processing zone (Cavite EPZ). The region has attracted leading Japanese car assembly companies (Honda, Toyota and Mitsubishi), wiring harness factory (Yazaki-Torres), glass plant (San Miguel-Yamamura) and aluminum factory (Reynolds Phils.) and a number of major oil refineries and depots (PNOC, Phoenix Petroleum, Pilipinas Shell, Caltex). The region is also home to a number of tourist destinations and heritage sites.

Batangas-Calapan RORO link (Sea Travel)

The first RO-RO connection links the islands of Luzon and Mindoro through the Batangas-Calapan route. There are four RO-RO shipping companies providing 24-hour service to this route – Montenegro Shipping, Starlite Ferry, Minolo Shipping Lines and Sta. Cruz Shipping Lines. Total passenger traffic in 2006 reached 1.3 million while vehicle traffic (buses, cars, SUVs, delivery trucks) stood at 240,836.



SOURCE: KRISTIN MARIE L. CHUA

²SLEX is currently undergoing major improvements. The Alabang Viaduct (SLEX 1) and the existing highway (SLEX 2) are being widened. Phase 3 (SLEX 3) involves the extension of the existing highway all the way to Sto. Tomas, Batangas.
 ³The STAR Phase 2 southbound lanes have been completed. It leads to the Port of Batangas. The construction of the northbound lanes is ongoing.
 ⁴Other provinces in the CALABARZON Region include Cavite, Laguna, Rizal and Quezon.

Linking the Philippine Islands

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The Port of Batangas is situated in the City of Batangas. It now serves as a secondary gateway to Manila with the completion of the Batangas International Port in 2005. The domestic area of the Port of Batangas has three piers and seven RO-RO ramps. It boasts of a secured parking area, passenger terminal building and warehouse facilities. Montenegro, Starlite and Baleno are the RO-RO shipping lines operating in the Batangas-Calapan route. Aside from the Batangas-Calapan route, the Port of Batangas is also connected to other RO-RO ports in Abra de Ilog, Puerto Galera (Mindoro Occidental) and Odiongan, Romblon.

Mt. Halcon, Mindoro



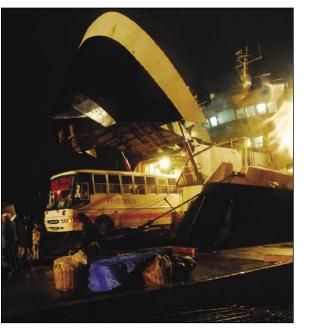
Source: Jennifer Llarena

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Calapan to Roxas, Mindoro Oriental (Land Travel)

The island of Mindoro is home to the provinces of Mindoro Occidental and Mindoro Oriental. One of its premier tourist destinations is Puerto Galera. Local and foreign tourists flock to this beach haven almost all year round. For mountaineers, Mt. Halcon is considered to be one of the most challenging heights to conquer. Mindoro is also home to Apo Reef, the second largest contiguous coral reef in the world. Mindoro depends mainly on agriculture. The island produces rice, banana, coconut and fishery products. With the opening of the Roxas-Caticlan route, markets in the Visayas and Mindanao became accessible.

Land travel from Calapan Port to the southern port of Dangay (located in the Municipality of Roxas) takes about two and a half hours. Total stretch covers 124 kilometers of good road.



Roxas-Caticlan RO-RO Route (Sea Travel)

ROXAS. The RO-RO Port of Dangay was completed in 2003. Prior to its completion, Mindoro was virtually detached from the Visayas. Cargo and passenger traffic was practically nil, except for infrequent trips of small wooden batels carrying limited cargoes and passengers. The direction of cargo movement was basically northbound (from Mindoro to Luzon).



With the introduction of RO-RO shipping service in 2003, the sleepy town of Roxas was suddenly awakened. The Roxas-Caticlan RO-RO route facilitated southbound movement of people and cargoes. In a short span of 5 years, passenger and cargo traffic grew at phenomenal rates of 438% and 677%, respectively. The number of vehicular traffic also increased from 9,269 to 46,218 for the period 2003-2006. As a result, the number of RO-RO shipping operators increased from 1 in 2003 to 3 in 2006. Likewise, the number of RO-RO ships plying the route increased from 1 to 5 during the same period. Phil Harbor, Starlite and Montenegro Shipping operate in the Roxas-Caticlan route. A new route, Roxas-Odiongan (Romblon) was also opened a couple of years ago.

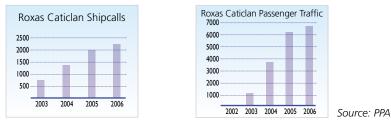
About 171 new business establishments opened up since 2003, confirming the theory that infrastructure development (like port development) no matter how small serves as a catalyst to economic growth and area development.

Similar to the Port of Batangas, the Dangay Port also has a provision for secured parking called "Park and Sail". Those who are not intent on bringing their vehicles to Caticlan may leave them at the port.





CATICLAN. The bustling tourism in Boracay got a bigger boost from the opening of the Roxas-Caticlan route. The Caticlan Jetty Port was developed by the local government of Caticlan. Total travel time for the Roxas-Caticlan is four hours.





Aklan to Iloilo City (Land Travel)

To traverse the 210 kilometer stretch from Aklan to Iloilo takes five hours (by car) to six hours (by bus). In general, the road condition is good (paved) with small pockets of rough road.

The province of Aklan is home to the world-famous "Boracay" beach. It is located in the northwestern tip of the Panay Island.⁵ The Island of Panay is known for its festive celebrations and tourist destinations (white sand beaches, century-old churches) as well as rich natural resources.

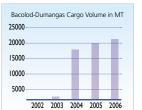
Cal's Chicken, a popular lechon manok outlet that started in Iloilo (like Andoks and Baliwag in Manila) was able to branch out in Bacolod because of the Dumangas-Bacolod RO-RO route which allows for daily deliveries.

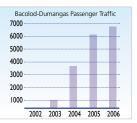
Dumangas-Bacolod RO-RO Route (Sea Travel)

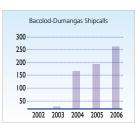
DUMANGAS. There are three RO-RO ports in Iloilo – Muelle, La Paz and Dumangas. Of these ports, Dumangas is the busiest in terms of RO-RO traffic. From one RO-RO operator in 2004, the Dumangas-Bacolod route at present has four - Tristar-Megalink, Millenium, Montenegro and Jomalia Shipping. The La Paz Port, a private RO-RO port, is used to link Iloilo with Guimaras (Jordan Port). FF Shipping operates this connection. The RO-RO trip from Dumangas to Bacolod takes one and a half hours.

BACOLOD. The Port of BREDCO is a privately developed and operated port in the City of Bacolod. Opened for commercial traffic in 1995, BREDCO is served regularly by ships coming to and from Manila, and the cities of Iloilo, Cagayan de Oro, Zamboanga, and General Santos. Negros Navigation & Company, SuperCat Corporation, Bullet Express, Aboitiz Transport System Superferry, Aleson Shipping, William Lines, Weesam Express and Sulpicio Lines are some of the shipping companies that call in this port. Foreign ships from China, the United States, Vietnam, South Korea and countries where the Philippines exports sugar and imports fertilizers and other industrial products also pass through Bacolod Port.

There are four ramps available for RO-RO operation. Two ramps are allocated for the Bacolod – Dumangas route, one for the Bacolod – Iloilo City route and the other is reserved for disembarkation whenever necessary.

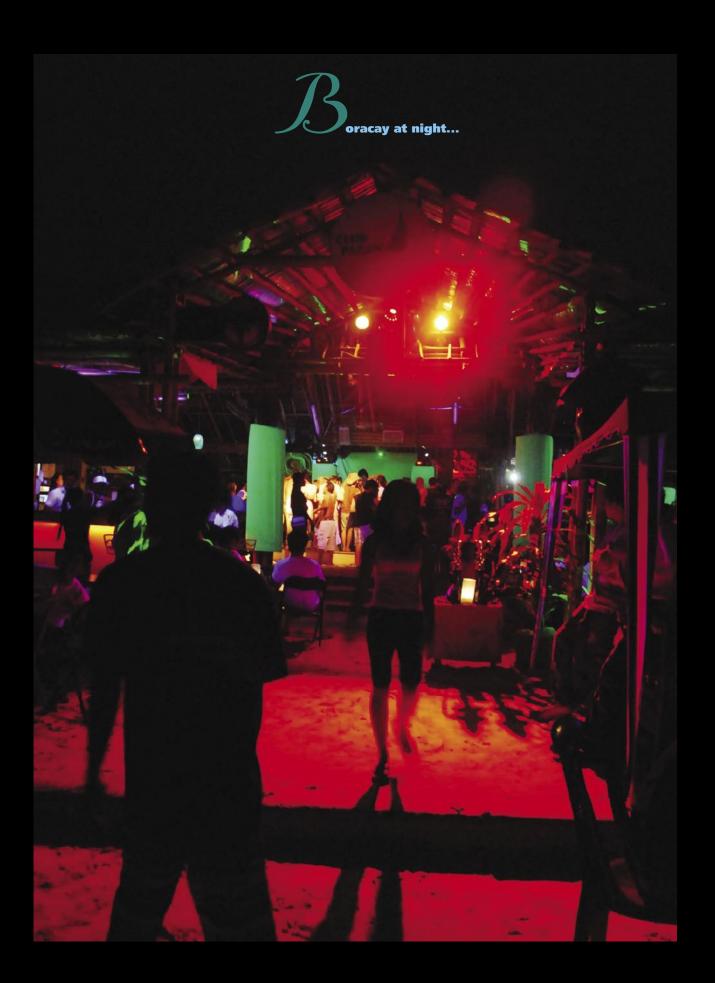




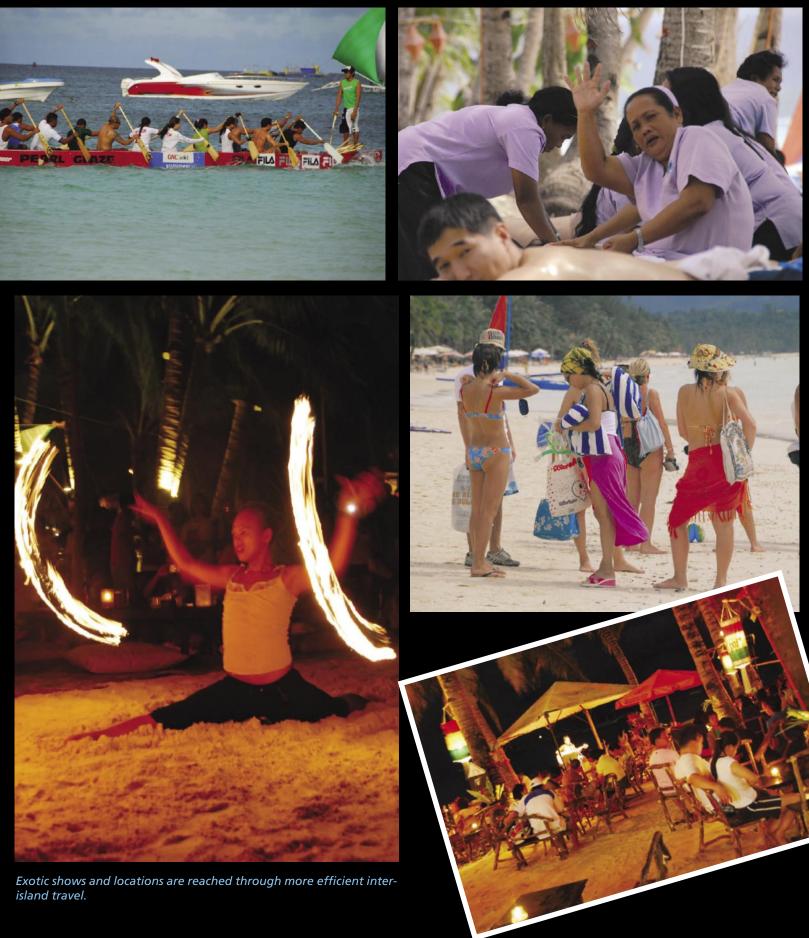


Source: PPA

⁵Panay island is home to the provinces of Aklan, Antique, Capiz and Iloilo.



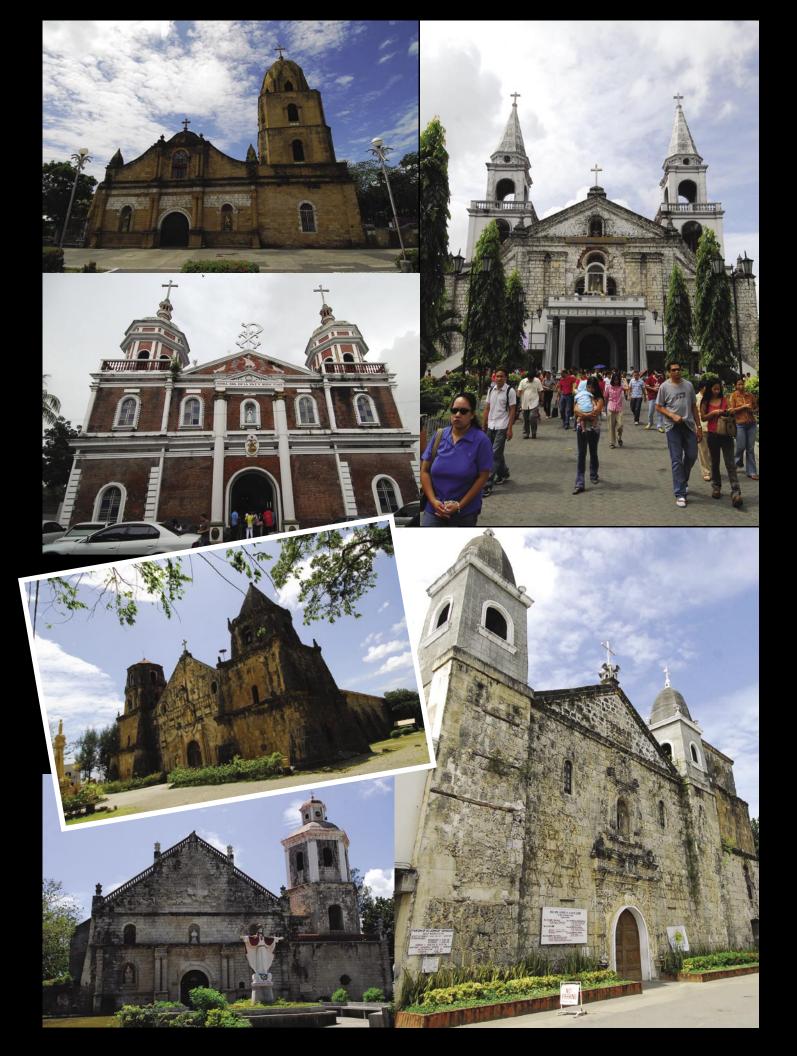
Rowing is a popular activity in Boracay, which is reached via the Roxas – Caticlan RORO route.



Breathing life to remote rural areas...



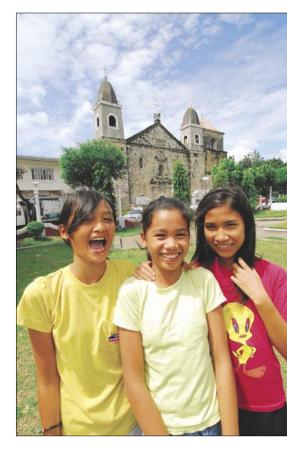
Tourism in Boracay gets an added boost with the Nautical Highway.



The two ramps allocated for Dumangas are used by Tristar-Megalink, Millenium and Jomalia while the ramp for Iloilo City is used by Montenegro Shipping (Bacolod-Muelle route).

Aside from RO-RO cargoes, the port handles general or break-bulk cargoes such as lumber and other wood and paper products, steel and aluminum products, steel scrap, liquid bulks, and a number of dry commodities such as fertilizers, grains, salts, sugar and other agricultural commodities in bags or in bulk.

Along with the growth of the port, the city is also on a binge with the rush of business wanting to be part of the urban scene. Notably striking is the mushrooming of several business establishments such as malls and IT-related firms. In March 2007, the 60,000 square-meter SM-Bacolod mall opened. The city is currently hosting several multinational BPO and ICT companies. The Philippine Economic Zone Authority (PEZA) has accredited two IT parks and five IT buildings in the city. Already, the city hosts four international call centers: Teleperformance, Teletech, 1-Solutions Outsource Asia and Focus Communications which started operations in 2006. Initially 500 graduates from Bacolod schools have been hired by these companies. Additionally, 2,000 call center agents are expected to be hired this year as more call center firms plan to open in the city, the most recent of which is Convergys.

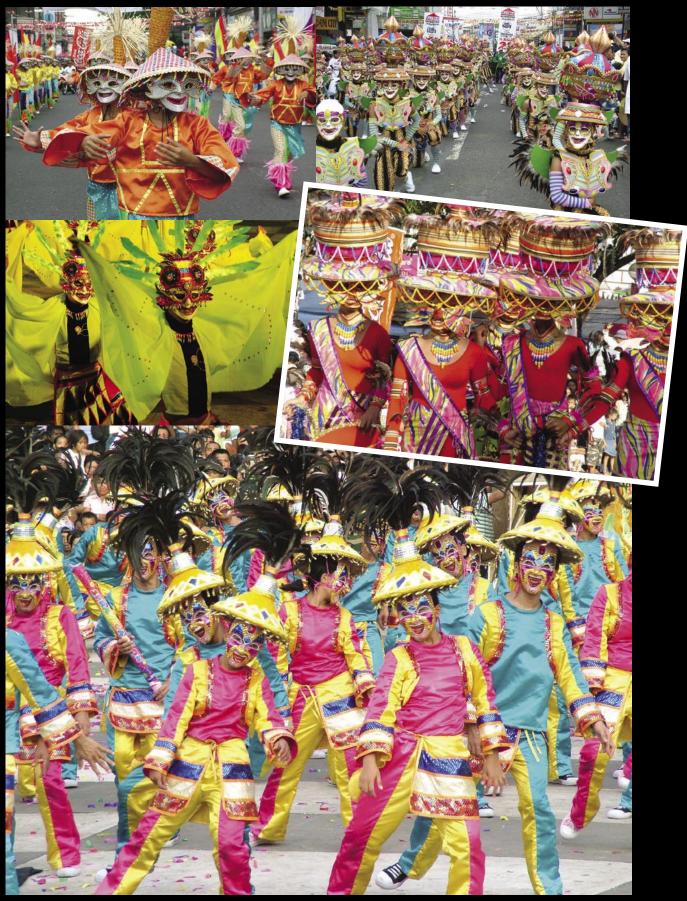


The improved accessibility of Bacolod, either by air transport or RO-RO, facilitated the visit of 245,000 local and foreign tourists to the city in 2006 – especially to participate in the celebration of the MassKara festival. Held every October, MassKara Festival is a celebration which has earned for Bacolod the title "City of Smiles". The festival was born 25 years ago in a time of crisis – when sugar prices plummeted in the world market (Bacolod is the sugarlandia) and the vessel M/V Don Juan sunk carrying many Negrenses, including members of prominent families. During this time, Bacolod artists, the local government and civic groups decided to hold "a festival of smiles" as it was thought of as a good opportunity to reverse the tide of gloom. The festival was held to remind the people that Bacolod can pull through and in the end triumph over its misfortune. It featured a MassKara Street Dance competition, a beauty pageant, carnivals, drum and bugle corps competitions, food festivals, sports events, musical concert, agri-trade fair, a garden show, among others.

Other tourist destinations include the 120-year old San Sebastian Cathedral, the century-old Palacio Episcopal, the Bishop's House which was formerly the official residence of the Spanish Governor General in the Island of Negros during the Spanish Era, the Provincial Capitol Building which was constructed on June 2, 1927 (considered one of the country's most beautiful and grandiose provincial capitol buildings), the Japanese War Memorial Shrine, Samodal Woodshaving Shop and Anaware Ceramics, the Capitol Lagoon Park and many others.



Source: Bacolod City Tourism Office



Source: Bacolod City Tourism Office



Source: Dinagyang Foundation



Bacolod to Dumaguete City (Land Travel)

Land travel from Bacolod to Dumaguete takes about 7 hours. Spanning a total land area of 3,426 hectares, the City of Dumaguete, capital of Negros Oriental, is situated on the plains of the southeastern coast of the Island of Negros, near the mouth of the Banica River. It is bounded on the North by the town of Sibulan; on the East by Tañon Strait and Mindanao Sea, serving as a natural border to the neighboring provinces of Cebu and Siquijor; on the West by the town of Valencia; and on the South by the town of Bacong. The city is experiencing fast urbanization as more and more Manilabased food chains (Shakey's, Pizza Hut, Dunkin Donuts, Jollibee, Chowking, McDonalds, Greenwich and Goldilocks among others) have located in the city.

Dumaguete's tourism industry benefits much from being part of the western leg of the SRNH. Dubbed as "The City of Gentle People", Dumaguete offers its share of historical sites and both natural and man-made tourist attractions – among them: the Cathedral's Bell Tower built in 1811, the Anthropological Museum and Luce Auditorium





Dumaguete is the "motorcycle" capital of the Philippines. SRNH cuts cost of transporting motorcycles from Manila to Dumaguete by as much as 45%.

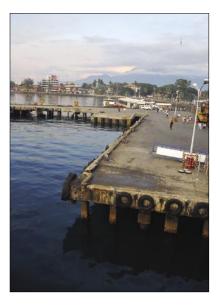
Linking the Philippine Islands

of Silliman University, and Rizal Boulevard, so named after the country's national hero, Dr. Jose Rizal who spent two years in exile in the city. Dumaguete boasts of a beautiful beachfront promenade, landmark manors, and other tourism sites. Americans consistently topped the list of foreign nationals visiting Dumaguete, followed by South Koreans, Japanese, Australians, and visitors from the United Kingdom, Australia and France.

Dumaguete-Dapitan RO-RO Route (Sea Travel)

The RO-RO trip from Dumaguete to Dapitan stretches some 44 nautical miles and takes about three hours. The Port of Dumaguete is the main gateway to the Negros Island and the springboard to Mindanao. The biggest port in Negros Oriental, it has three finger piers and two RO-RO ramps spanning a total land area of 22,536 square meters and berthing length of 647 meters.

The ongoing expansion of the port necessitated the transfer of some traffic to the nearby private port owned by the Dumaguete Coconut Mills, roughly 11 kilometers south of the city. This explains the drop in both cargo and passenger traffic at the Port of Dumaguete in 2006. The port was given a 25-year contract by the PPA to operate commercially and cater to both local and foreign ships. Trampers unload cement, steel bars and flour at this port.



RO-RO service from Dumaguete to Dapitan started in 2003 with two shipping companies – George & Peter Lines and Cokaliong Shipping Corporation. Like the Roxas-Caticlan route, in a short period of three years, the number of RO-RO operators and ships increased due to the growth in cargo and passenger traffic. To date, there are already five shipping lines plying the route with a total of eight RO-RO ships.

RO-RO Operators	No. of Ships
Montenegro Shipping	3
George and Peter Lines	1
Aleson Shipping Lines	1
Asian Marine Transport/Super Shuttle	1
Cokaliong Shipping	2
TOTAL	8

Source: JICA Study (2007)

In May 2006, Ceres Bus Liner Company fielded a bus to ply the Cubao (Manila) -Zamboanga (Mindanao) trip with an initial 30 passengers on board. The bus line made arrangements with Asian Marine Transport's Super Shuttle ship to be accommodated in its 4pm daily trip. The bus carried passengers from Manila to Iloilo, Bacolod and to as far as Zamboanga City.

DAPITAN. The Port of Dapitan is Mindanao's gateway to Luzon and Visayas on the northwest. The port started its operation in 1975. In 1988, expansion started to accommodate the bigger ships of Sulpicio Lines. It has two RO-RO ramps. To further expand port capacity, the PPA in 2006 gave a private company called DIPCI (Dapitan Integrated Port Complex, Inc.) a permit to develop a private commercial port adjacent to the public port. This port complex will have a RO-RO wharf, a cold chain plant and grains bulk-handling terminal.



A RO-RO ship docking at the Port of Dapitan, Zamboanga del Norte.



The port development is designed to be a modern logistics hub. The port complex will provide berthing for two big RO-RO ships at any time of arrival, and enough space for rapid turn-around time. The cold storage is expected to serve the fishery output (bangus, tilapia, prawns) of some 1,600 hectares of fishponds in Dapitan. This is a logical move since the regular users of RO-RO vessels at

the Port of Dapitan are fish traders from Zamboanga City and the nearby provinces of the Zamboanga Peninsula. About 80% of RO-RO cargoes is fresh fish bound for Dumaguete, Bacolod, Iloilo and Cebu.

Fish dealers from Zamboanga prefer RO-RO ships over big conventional cargo ships due to faster ship turn-around time and availability of more trips. RO-RO trips start as early as 5:00 am. In the afternoon, fish carriers can go back to Dapitan for the next trip.

Finally, the grains bulk handling terminal is poised to support the grains production (particularly corn) in the western part of Mindanao – mainly Lanao del Sur, Lanao del Norte and Zamboanga del Sur. Together, these provinces produce about 500,000 metric tons of corn a year.

Linking the Philippine Islands

Dapitan and the rest of Mindanao

On January 24, 1973, by virtue of Presidential Decree No. 105 issued by the late President Ferdinand E. Marcos, Dapitan was officially called the "Shrine City of the Philippines". Dapitan City holds a special place in Philippine history because it once sheltered the country's national hero, Dr. Jose P. Rizal, while in exile from July 17, 1892 to July 31, 1896. It was here in Dapitan where Rizal exemplified the ideal that "it is a useless life which is not consecrated to a great ideal."

Dapitan and the Zamboanga Peninsula attract tourists from the Visayas to visit interesting sites such as the Dakak Park and Beach Resort, Jose Rizal Shrine, among others.



Dapitan to Zamboanga City (Road Travel)

The 250-km trip from Dapitan to Zamboanga City takes about three hours. The road condition is good which makes the entire trip pleasant. This route facilitates passenger and cargo movements originating from as far as Jolo, Sulu and Tawi-Tawi.

Southwestern Mindanao RO-RO Connections

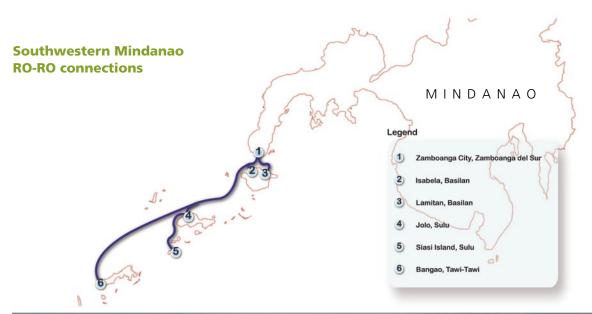
The southwestern Mindanao RO-RO connections consist of the following routes:

- Zamboanga City Isabel (Basilan)
- Zamboanga City Lamitan (Basilan)
- Zamboanga City Siasi (Sulu)
- Zamboanga City Bongao (Tawi-Tawi)

The development of these RO-RO ports (Lamitan, Siocon, Siasi and Bongao) was funded by the United States Agency for International Development (USAID) through its Growth with Equity in Mindanao (GEM) Program.

Agricultural produce such as seaweeds are shipped from Tawi-Tawi, Sulu and Basilan to Zamboanga City. Majority of these cargoes go all the way to Visayan and Luzon markets via the Western Nautical Highway.

44 Through the highways of the Sea





CHA-RO operations at the Port of Zamboanga, Zamboanga City



Dapitan to Central and Eastern Mindanao

Dapitan Port is the last port in the Western Nautical Highway and serves as the gateway to Mindanao. From Dapitan City, buses bound to Cagayan de Oro regularly ply the route. A bus trip from Dapitan to Cagayan de Oro normally takes six hours of land and sea travel. Buses going to Cagayan de Oro (CDO)

make use of the Ozamis-Mukas RO-RO link. Without the RO-RO link, the land trip from Dapitan to CDO via Tubod will be longer by three hours.

Other provinces like Maguindanao, Lanao, Cotabato are also accessible from this route.

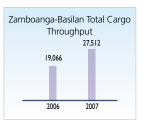
Linking the Philippine Islands

Ozamis – Mukas Route

Driving by land from Mukas to Ozamis before took three hours. When the RO-RO link was established in 1996, the same trip now only takes 30 minutes. Aside from faster travel time, RO-RO made Ozamis more accessible to students from neighboring provinces.

Known as a "university belt" in Northwestern Mindanao, the City of Ozamis houses several universities and colleges such as Misamis University (MU), Medina College, and Lasalle-ICC. Before the establishment of the Mukas-Ozamis route, students from Mukas (and its neighboring towns) enrolled at universities in Ozamis used to pay 500 pesos for a week's lodging. Now that the RO-RO link is operational, students can go to school, attend classes, and go home by the end of the day for a mere 32 pesos (one way student price is 16 pesos).

PORT OF OZAMIS. The City of Ozamis houses the Port of Ozamis, which is owned and operated by the Philippine Ports Authority (PPA). The port is considered as one of the busiest ports in Mindanao with an average of 12,676 shipcalls and 2.95 million passengers from 2003 to 2005. The port also serves as a RO-RO link to the town of Mukas in Lanao del Norte.





Source: PPA



The port has two ramps solely dedicated for RO-RO ships. Daima Shipping Corporation is the RO-RO service provider in the route, operating four RO-RO ships daily.

PORT OF MUKAS. The Port of Mukas is a private port owned and operated by Daima Shipping Corporation, the same company that provides RO-RO service from Ozamis to Mukas. The port was established in 1996. It has only one big ramp that can easily accommodate two RO-RO vessels at the same time.

As a private port operator, Daima Shipping Corporation operates a well-managed port. The port facilities are simple yet practical for RO-RO operation. The available ancillary services (bake shop and restaurant) provide passengers a more comfortable stay.





Activities of the President during the first SRNH caravan in 2003.

Source: OP Malacañang Photo Section - NIB





The Eastern Nautical Bighway

The Eastern Nautical Highway, also known as the Pan Philippine Highway or the Maharlika Highway, bridges the islands of Luzon, Visayas, and Mindanao via an extensive network of roads, bridges, and ferry services spanning a total distance of 2,500 kilometers.

The Pan Philippine Highway was first conceptualized in 1965 and was envisaged to stimulate agricultural production by reducing transport cost, promoting countryside development, and expanding industrial production for both the domestic and foreign markets.



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The highway was further improved in 1997 with assistance from the Japanese government. The improvement included an additional 600 kilometers of road from Sto. Tomas, Batangas to Matnog, Sorsogon and was thus dubbed as the Philippine-Japan Friendship Highway.

The Eastern Nautical Highway links Luzon to Visayas and Mindanao via the provinces of Sorsogon, Samar, Leyte, Southern Leyte and Surigao del Norte. The northernmost tip of the transport network is located in Laoag City, Ilocos Norte (Luzon) while the southernmost tip is located in Zamboanga City, Zamboanga del Sur (Mindanao).

As the first major short sea shipping route, the eastern seaboard has been widely used as an alternative means for transporting produce as well as passengers from Luzon to Mindanao. Compared to the Western Nautical Highway which crosses four short sea links, traveling via the Eastern Nautical Highway takes one to Mindanao via only two short sea links.

The major ports found along the Eastern Nautical Highway are the Ports of Matnog in Sorsogon, San Isidro and Allen in Samar, Liloan in Southern Leyte and Lipata in Surigao del Norte.

Of the four RO-RO ports and terminals that make up the Eastern Nautical Highway, three are public-owned while one port, which is the Balwarteco Port in Allen, Samar is privately owned.

The three regions that span across the Eastern Nautical Highway include the Bicol Region, the Eastern Visayas Region, and the Northern Mindanao Region.



Manila – Matnog (Land Travel)

Traveling via the Eastern Nautical Highway from Manila would first take one to Matnog, which is located at the tip of Sorsogon Province. Total travel time is approximately 12 hours covering a distance of 645 kilometers by land.

Matnog, Sorsogon is located at the southmost tip of the Luzon island. The town of Matnog is home to one of the busiest RO-RO ports in the country. Its potential as a tourist destination, due to its white sandy beaches, has earned its inclusion in the Tourism Master Plan of the Bicol Region. Major scenic spots

include Tikling Island, Subic Island, Hidhid Heights, Bantigui Beach Resort, and Huag Island.

Matnog like the rest of its neighbors in the region, is primarily an agricultural economy. Livestock is raised mainly at the backyard level, save for the very small numbers of farms. Farmers raise cattle, carabao, hog, goat, and chicken. The carabao is used as a farm work animal. Hogs and chicken are sold at the local market. Aside from marine products, Matnog also produces coco-based shell products as well as buri and anahaw products.



Matnog-Allen RO-RO Route (Sea Travel)

Continuing the journey from Matnog, Sorsogon brings us to Allen, Samar via sea travel. The Matnog-Allen RO-RO link covers a total distance of 12 nautical miles equivalent to approximately 45 minutes to an hour of travel by RO-RO.

Cargoes and passengers that pass through the port of Matnog going to the Visayas have the option to either disembark at either Lo-oc, Allen or Dapdap, Allen.

Approximately 2,000 buses bound for Mindanao cross the



Matnog-Allen link every month. These bus services are being provided by Philtranco Bus Company and Bachelor Transit.

A total of 10 RO-RO ships operated by three shipping companies call at the Port of Matnog: Sta. Clara Shipping (with four RO-RO ships); and its sister-company Peñafrancia (with three RO-RO ships) and Maharlika Shipping (with three RO-RO ships).

Sta. Clara and Peñafrancia connect Matnog, Sorsogon to Lo-oc, Allen, Northern Samar while Maharlika connects Matnog to Dapdap, Allen.

ALLEN. Allen, Samar is located at the Northern part of the province of Samar. Two RO-RO ports in Allen connect to Matnog, Sorsogon. Port of Allen in Barangay Lo-oc is mostly preferred by passengers because travel time from Matnog Port to Allen (Lo-oc) takes only an hour (12 nautical miles from Matnog).

Linking the Philippine Islands

Another port, the PPA-operated Port in Barangay San Isidro, which is also used to serve passengers and cargo from Matnog to Allen, has long stopped operation due to poor performance (low passenger volume, cargo throughput and longer distance (17 nautical miles from Matnog).

Allen, Samar – Tacloban, Leyte - Liloan Southern Leyte (Land Travel via the San Juanico Bridge)



Upon disembarking at Allen, Samar, the journey continues via land travel which would take one to Tacloban, Leyte, home to the famous San Juanico Bridge.

San Juanico Bridge crosses over the picturesque San Juanico Strait connecting the islands of Samar and Leyte, and provides a major link between northern

and southern Philippines through the Pan-Philippine Highway.

The 2.16-kilometer bridge that spans the width of San Juanico Strait joins the provinces of Samar and Leyte. It was considered an engineering feat ahead of its time when it was constructed in 1973. The San Juanico Bridge is the only one of its kind in the country, thus becoming a tourist attraction.

Port of Liloan, Southern Leyte

Connecting Tacloban City on the Leyte side and Santa Rita town on the Samar side, it offers many striking views, especially the islets of the province. It is approximately 10 minutes from downtown Tacloban City and is accessible by passenger jeepney, bus, motorcab or private vehicle.

Liloan is located at the southernmost part of Southern Leyte and the 417-kilomiter land trip from Tacloban to Liloan takes around three to four hours.

Liloan-Lipata RO-RO Route (Sea Travel)

It takes about three hours from Liloan to Lipata, Surigao via RO-RO. Two bus companies operate the Lipata – Liloan route. These include the Bachelor Express serving the Tacloban-Davao and Ormoc-Davao and vice versa, and Philtranco plying the Davao-Manila route. Aside from these two bus companies, trucking companies ply the Lipata-Liloan route carrying cargoes that go all the way to Manila and other destinations.

Lipata, Surigao del Norte is also known as the Gateway to Northern Mindanao from the Visayas via the Eastern Nautical Highway.







A show of unity and support for the Strong Republic Nautical Highway



The first SRNH conference was organized by the Philippine Chamber of Commerce and Industry in October 2003

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The Central Nautical Bighway

Leading the second RO-RO Caravan, President Arroyo is scheduled to inaugurate in April 2008 the Central Nautical Highway – the last main trunk line of the Strong Republic Nautical Highway. The major RO-RO links forming the central nautical highway include:

- Pasacao (Camarines Sur) San Pascual Claveria (Burias Island) Aroroy (Masbate) / Another route is Pilar (Sorsogon) to Aroroy (Masbate)
- Cawayan (Masbate) Daanbantayan (Cebu)
- Mandaue (Cebu) Tubigon (Bohol)
- Jagna (Bohol) Mambajao (Camiguin)
- Benoni (Camiguin) Balingoan (Misamis Oriental)

The Central Nautical Highway can also be accessed from the Eastern Nautical Highway via Naval (Biliran) – Esperanza (Masbate) route.





Manila to Pilar, Sorsogon (Land Trip)

It takes 10 hours to cover the 588-km land trip from Manila to Pilar, Sorsogon. The municipality of Pilar serves as the gateway for Luzon to Mindanao via the island provinces of Masbate, Cebu, Bohol and Camiguin. The nearby municipality of Donsol (Sorsogon) is home to the whale-sharks (butanding) while the neighboring province of Albay is home to Mt. Mayon.



Pilar – Aroroy RO-RO Route (Sea Travel)

PILAR. At present, the existing municipal feeder port in Pilar is used for the Pilar-Aroroy RO-RO link. A RO-RO ramp was constructed in the port to make it RO-RO capable. However, there is a plan to develop a new RO-RO port in San Antonio, Pilar. Travel time via RO-RO from Pilar to Aroroy is approximately 1 hour.

AROROY. The PPA developed a RO-RO terminal adjacent to the existing municipal feeder port in Aroroy. This port represents the new point of entry to the province of Masbate.

Masbate is one of the country's developing island provinces. Connecting the province to both Luzon and

Cebu would provide the province access to a larger market. Main products produced in Masbate are livestock (cattle), copra, and mineral products (like gold and manganese). With the opening of the Central Nautical Highway, Masbate's direction of trade is no longer bound to the north (i.e., from Masbate to Luzon). With the completion of the RO-RO terminals in Cawayan and Daanbantayan, south-bound trade (to Visayas and Mindanao) is now being facilitated through RO-RO. It is expected that the Roxas-Caticlan experience of Mindoro Oriental will be replicated in Masbate. The increased economic activity will aid the rapid development of the province.

Aroroy to Cawayan (Land Trip)

It takes about five to six hours of land travel from Aroroy (North) to Cawayan (South) spanning a total distance of 125 kms. The port of Cawayan is the jump-off point of Masbate to the Visayas.

Cawayan – Daanbantayan RO-RO Route (Sea Travel)

The RO-RO trip from Cawayan, Masbate to Daanbantayan, Cebu takes about four hours and covers a total distance of approximately 50 nautical miles.

CAWAYAN. The PPA rehabilitated and expanded the existing wharf in Cawayan to make it a RO-RO capable port.

DAANBANTAYAN. The Daanbantayan RO-RO terminal development is a project of the provincial government. The port is located in the northern tip of the Cebu Island.



Basilica Minore del Sto. Niño de Cebu

Daanbantayan to Cebu City (Land Trip)

The road network from Daanbantayan to Cebu City is rated to be good. It takes about two hours to traverse the 130-kilometer stretch.

The City of Cebu is the capital of the Province of Cebu. The presence of large urban areas in its immediate and outlying vicinity has transformed the City of Cebu into the urban core and commerce center, with a pattern of activities that respect no boundaries due to the unrestricted and avoidable flow of goods and people. The prime destination of these movements is the areas and/or vicinities of Carbon, Magallanes, and Colon Streets, within the Central Business District (CBD).

The city, as a regional center, continues to radiate its influence to the rest of the Visayas and Mindanao regions. It must be noted that for the last four decades after World War II, the City of Cebu has metamorphosed into the center of education and culture; the hub of sea and air transport; and the center of trade and commerce.

Linking the Philippine Islands



Santa Fe, Bantayan Island, Cebu

The most famous of all historical landmarks in Cebu City is Magellan's Cross that was planted in Cebu shores by Ferdinand Magellan in April 14, 1521. The Cross marked the spot where the first Catholic Christians - Rajah Humabon, Queen Juana and about 400 followers were baptized by Fr. Pedro de Valderama. Another interesting tourist landmark is the Fort San Pedro, which is considered to be the smallest and oldest tribastion fort in the country. Built in 1738, the Fort served as the nucleus of the first Spanish settlement in the Philippines. The Basilica Minore del Santo Niño is the only basilica in the Far East. The Basilica houses the country's oldest religious image - the Miraculous Image of the Holy Child Jesus more popularly known as "SEÑOR SANTO NIÑO." The Sinulog Festival is a major celebration every first month of the year in honor of Señor Sto. Niño.

The island of Mactan houses the Mactan Export Processing Zone and world class resort-hotels (Mactan Shangri-la and Plantation Bay).

Cebu City – Tubigon RO-RO Route (Sea Travel)

Cebu City. The main ports of Cebu are located in Cebu and Mandaue City. All ports in the Cebu province are under the supervision of the Cebu Ports Authority (CPA). The Cebu – Tubigon (Bohol) RO-RO route is one of the two routes that existed prior to the establishment of the Central Nautical Highway. The RO-RO trip takes about two hours.

TUBIGON. The municipality of Tubigon is approximately 54 kilometers northeast of the City of Tagbilaran, the capital of Bohol. Four



shipping companies serve the Mandaue-Tubigon RO-RO Route - Rolly Shipping Lines (1 trip per day), Kinswell Shipping Lines (2 trips per day), Island Shipping (1 trip per day), and Jadestar (2 trips per day).

The island province of Bohol is the rice granary of the Visayas. It also produces coconuts, bananas, corn, vegetables and various root crops. Its municipal waters teem with the most delicious blue crabs, aside from being a very rich fishing ground. It is also the habitat of countless rare tropical fishes. Bohol is home to the tarsiers (smallest monkey in the world) and the famous Chocolate Hills.









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Tubigon to Jagna (Land Trip)

Land trip from the Port of Tubigon to the Port of Jagna takes two hours.

Jagna-Balbagon RO-RO Route (Sea Travel)

JAGNA. The PPA upgraded the existing port and developed a RO-RO ramp for RO-RO operations. The RO-RO trip from Jagna (Bohol) to Balbagon (Camiguin) takes about 4 hours. Gothong Shipping provides a direct RO-RO service from Jagna to Cagayan de Oro once a week.

BALBAGON. The Port of Balbagon is located in the capital town of Mambajao, Camiguin. Aside from the RO-RO service between Jagna and Balbagon, Asian Marine Transport provides a RO-RO service between Camiguin and Cebu once a week. Cargoes consist mainly of diverse agricultural products such as copra, coco lumber, bananas, lanzones, among others.

Balbagon to Benoni (Land Trip)

Land trip from Balbagon to Benoni takes about one and a half hours.



Camiguin Island

Benoni-Balingoan RO-RO Route (Sea Travel)

There are three terminal ports operating in the Province of Camiguin. The main port of entry to Camiguin is the Port of Benoni (Mahinog), and minor ports at Balbagon (Mambajao) and Guinsiliban. The Port of Benoni is part of the last leg of the Central Nautical Highway.

BENONI. The Port of Benoni is located in the southern part of Camiguin. It has two reinforced concrete piers and two RO-RO ramps. The Port of Benoni is the busiest port in Camiguin Province with three shipping companies operating on a daily basis - Corrales Shipping Company (with two vessels: M/V Hijos and M/V Doña Pepita), Philstone Shipping Corporation (with three vessels: M/V Kalinaw, M/V Yuhum and M/V Royal Princess), and Asian Marine Transport Corporation (with two vessels: Super Shuttle 1 and Super Shuttle 6).



Travel time from Benoni to Balingoan is one and a half hours. The average number of ship calls is seven per day. The port experiences congestion during the Holy Week when Camiguin is visited by close to 60,000 tourists to be part of the local Lenten celebration called "Panaad."

BALINGOAN. Located at Balingoan, Misamis Oriental, the Port of Balingoan is about 84 kilometers from Cagayan de Oro City. Balingoan Port is the nearest jump-off point for passengers/tourists and cargoes going to/coming from the Island-Province of Camiguin. It has three RO-RO ramps. The Port of Balingoan boasts of a new passenger terminal. There is, however, a need to upgrade and rehabilitate the existing pier. Part of the development plan is to convert the port into a domestic port once the international port opens in Cagayan de Oro.

There are three shipping companies with seven vessels operating at the Balingoan Port: One serves the Balingoan-Guinsiliban route (the Super Shuttle Ferry 9 operated by Asian Marine Transport Corporation) and the rest serve the Balingoan – Benoni route. Average travel time is one hour and 15 minutes.

Cargoes at Balingoan Port consist mainly of copra and coconut lumber (from Camiguin) rolled on through trucks (10 and 6 wheeler types) usually bound for Cagayan de Oro.

Balingoan to Central and Southeastern Mindanao

From the Port of Balingoan, trucks and buses can go east to Surigao and Agusan, to the southeastern provinces of Mindanao (South Cotabato and Davao) through the BUDA highway – cutting through Cagayan de Oro and Bukidnon, or go west to Ozamis.

The eastern part of Mindanao is home to large agribusiness ventures – Dole Philippines and Del Monte Philippines. Davao and South Cotabato export tuna and other marine products. Bukidnon, like South Cotabato, produces corn. The province of Misamis Oriental houses the PHIVIDEC Industrial Estate while Iligan City is home to some heavy industries (steel, cement).



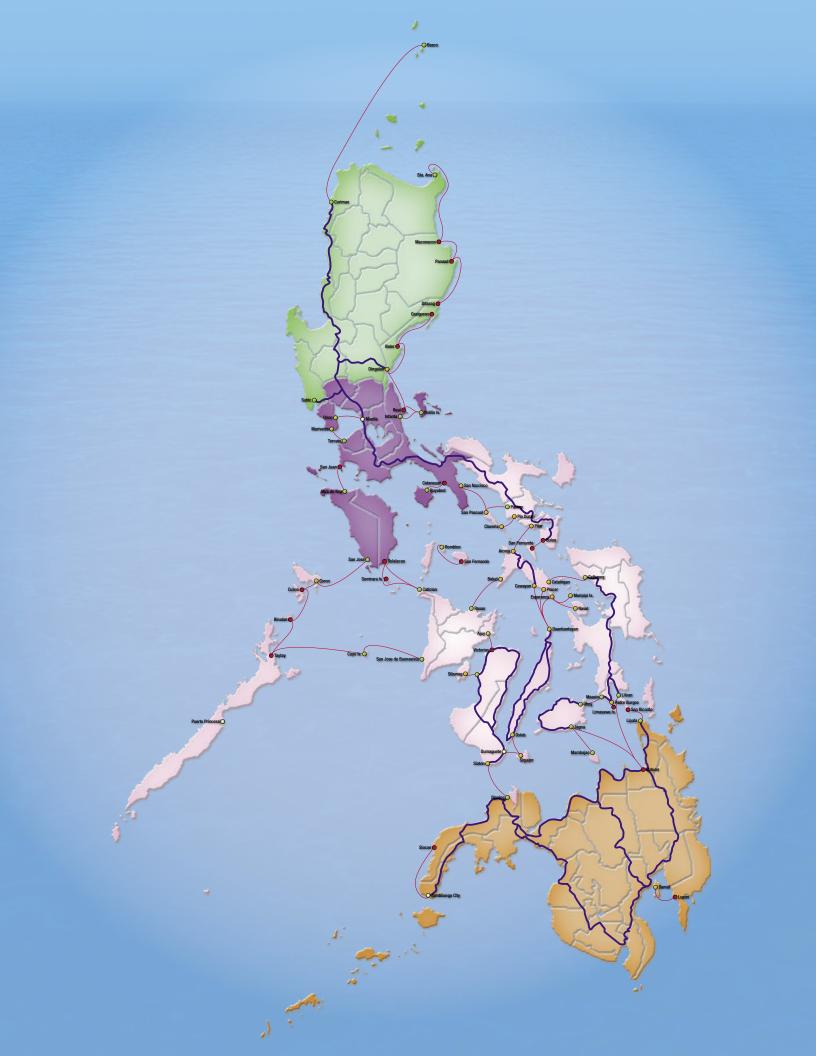
The map below highlights the existing east - west RO-RO routes:

East-West Lateral

Batangas City, Batangas – Abra de Ilog, Occidental Mindoro Batangas City, Batangas – Puerto Galera, Oriental Mindoro Batangas City, Batangas - San Jose, Occidental Mindoro Batangas City, Batangas – Romblon, Romblon Roxas, Oriental Mindoro – Odiongan, Romblon Lucena, Quezon – Odiongan, Romblon Lucena, Quezon - Cawit, Marinduque Lucena, Quezon – Balanacan, Marinduque Lucena – Buyabod, Marinduque Lucena - Romblon, Marinduque Lucena – Masbate City, Masbate Atimonan, Quezon – Alabat, Quezon Tabaco, Albay – Virac, Catanduanes Tabaco, Albay – San Andres, Catanduanes Puerto Princesa, Palawan – Cuyo Is., Palawan Cuyo Is., Palawan – Iloilo City, Iloilo Iloilo City, Iloilo – Jordan, Guimaras Dumangas, Iloilo – Bacolod, Negros Occidental Ajuy, Iloilo – Tabuelan, Cebu Tabuelan, Cebu – Escalante, Negros Occidental Cadiz, Negros Occidental - Sta. Fe, Bantayan Is., Cebu Sta. Fe, Bantayan Is., Cebu – Hagnaya, Cebu San Carlos, Negros Occidental – Toleda, Cebu Guihulngan, Negros Oriental – Dumanjug, Cebu Amlan, Negros Oriental – Samboan, Cebu San Jose, Negros Oriental – Samboan, Cebu Sibulan, Negros Oriental – Santander, Cebu Sibulan, Negros Oriental – Oslob, Cebu Dumaguete, Negros Oriental – Oslob, Cebu

Dumaguete, Negtos Oriental – Larena, Siguijor Oslob, Cebu – Larena, Siguijor Larena, Siguijor – Plaridel, Misamis Occidental Larena, Siquijor – Tagbilaran, Bohol Tagbilaran, Bohol – Cagayan de Oro, Misamis Oriental Jagna, Bohol – Cagayan de Oro, Misamis Oriental Jagna, Bohol – Nasipit, Agusan del Norte Loon, Bohol – Argao, Cebu Tagbilaran, Bohol – Cebu City, Cebu Tubigon, Bohol – Cebu City, Cebu Tubigon, Bohol – Naga, Cebu Clarin, Bohol – Mandaue, Cebu Jetafe, Bohol – Punta Engaño, Cebu Cebu City, Cebu – Bato, Leyte Cebu City, Cebu – Talibon, Bohol Cebu City, Cebu – Ubay, Bohol Cebu City, Cebu - Maasin, Southern Leyte Maasin, Southern Leyte – Ubay, Bohol Hindang, Leyte – Mandaue, Cebu Punta Engaño, Cebu – Olango Is., Cebu Mandaue, Cebu – Ormoc, Leyte Mandaue, Cebu – Poro, Cebu Poro, Cebu – Isabel, Leyte Isabel, Leyte – Danao, Čebu Carmen, Cebu – Ormoc, Leyte Bogo, Cebu – Palompon, Leyte Lipata, Surigao del Norte – Dapa, Surigao del Norte Guinsiliban, Camiguin – Balingoan, Misamis Oriental







Sailing Forward

EXPANDING THE SRNH

The map on the left side presents some of the potential RO-RO connections being considered by the private sector and local government units (LGUs) for development.

Ilocos-Batanes RO-RO Link

The Port of Currimao has an existing RO-RO port. The Philippine Ports Authority is currently developing a berthing facility to accommodate international cruise ships. A RO-RO connection from llocos Norte to the island province of Batanes will expand the scope of tourism in Northern Luzon.



Agriculture Secretary Arthur Yap, a staunch RO-RO supporter, inspects the RO-RO ramp at the port of Currimao in Ilocos Norte. With him are provincial board member Nonong Marcos, the author and the PPA Port Manager.

Linking the Philippine Islands



Aurora province is one of the country's surfing capitals.

Northeastern Coastal RO-RO Connections

The northeastern provinces of Luzon consist of Cagayan, Isabela, Aurora and Quezon. There is an ongoing effort to connect these provinces through a coastal RO-RO service. In fact, the provincial governments of Aurora, Cagayan and Isabela formed a corporation, called Northeastern Luzon Pacific Coastal RORO Service Corporation, to invest in the provision of the RO-RO service.

Initially, the Dingalan-Baler-Casiguran route can be made operational with the completion of the port improvements in Baler and Casiguran. The existing fish port in Baler is in relatively good condition. There is, however, a need to develop a RO-RO ramp

in the port to make it RO-RO capable. The fish wharf in Casiguran is currently being upgraded into a RO-RO capable port. Civil works started in January 2008 and is expected to be completed within a year. The scope of work includes the construction of RC wharf and RO-RO ramp, widening and upgrading of rock causeway, and installation of port lighting system. The RO-RO port in Dingalan was completed and inaugurated by the President in November 2007.

Road access development to Dingalan (SCTEP-Dingalan Road) and Baler (via Pantabangan) from Manila and Central Luzon is ongoing. The development of the Umiray Bridge, which will make Dingalan accessible from Manila via Infanta, Quezon, is set to start. Finally, the development of the Baler-Casiguran Road is ongoing and is expected to be completed in 2010.

During the Aurora Investment Summit last January 2008, the NDC Maritime Leasing Corporation and the Provincial Government of Aurora signed a Memorandum of Understanding (MOU) for the development and operation of the RO-RO service in the coastal municipalities of Dingalan, Baler and Casiguran.

Cebu-Bohol-Southern Leyte Loop

The Cebu-Bohol-Southern Leyte loop will connect the Central Nautical Highway with the Eastern Nautical Highway. Travelers from northeastern Mindanao bound for Cebu or Bacolod have the option of taking the Lipata-Liloan RO-RO route and then proceed by land to Maasin for the next RO-RO links (Maasin, Southern Leyte - Ubay, Bohol and Getafe, Bohol – Cebu) instead of going to Misamis Oriental for the Misamis Oriental (Balingoan) – Camiguin – Bohol – Cebu route. Those who intend to go as far as Bacolod will have to take the Toledo (Cebu) – San Carlos (Negros Oriental) lateral RO-RO link.



A private sector contingent led by the co-chairs of the EDC Networking Committee on Transport and Logistics, Messrs. Meneleo Carlos and the author, tries the RO-RO from Cebu to Bohol.

Batangas-Mindoro-Palawan RO-RO Links

Another major agro-tourism destination is Palawan. While Boracay can be accessed from Batangas via Oriental Mindoro, Palawan may be accessed from Batangas via Occidental Mindoro (San Jose). A RO-RO link will be established from San Jose, Oriental Mindoro to Coron – a small island in the northern portion of Palawan. From Coron, one can hop to Cullion, Binalan and Taytay to reach Puerto Princesa by land. Famous tourist spots in Palawan include El Nido, Maricaban Bay, Calauit Wildlife Safari, and Kayangan Lake among others.



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DOTC RO-RO Action Program for 2008-2010

With the RO-RO policy in place, the remaining work will focus on policy enhancements as well as further expansion of the SRNH network. The following recommendations were raised at the Food Summit last April 4, 2008.

POLICY ENHANCEMENT. The DOTC Inter-Agency RO-RO Committee approved, for endorsement to President Arroyo, the issuance of an Executive Order that designates all roads that form part of the SRNH as "national roads". This intervention is designed to improve the development and maintenance of roads forming the national highway. It also aims to eradicate illegal imposition of toll fees, as well as increase the participation of DPWH in the strategic development of road networks that will further expand the SRNH system.

Another policy recommendation is the inclusion of the chassis-RORO (CHA-RO) operation as part of the RO-RO service. This intervention seeks to reduce the domestic transshipment of export and import cargoes. It will also dovetail existing measures – such as discounted wharfage and scanning fees – that cushion the impact of peso appreciation on exports and enhance the country's competitiveness.

SRNH NETWORK EXPANSION. The DOTC and PPA will fast-track the development, rehabilitation and upgrading of RO-RO ports/terminals especially those that provide east-west connections. DOTC shall also coordinate with DPWH on the provision of roads that would provide inter-modal connectivity. Finally, DOTC and PPA shall likewise work together in crafting the terms of reference that will govern the effective and immediate privatization of public RO-RO ports and terminals.



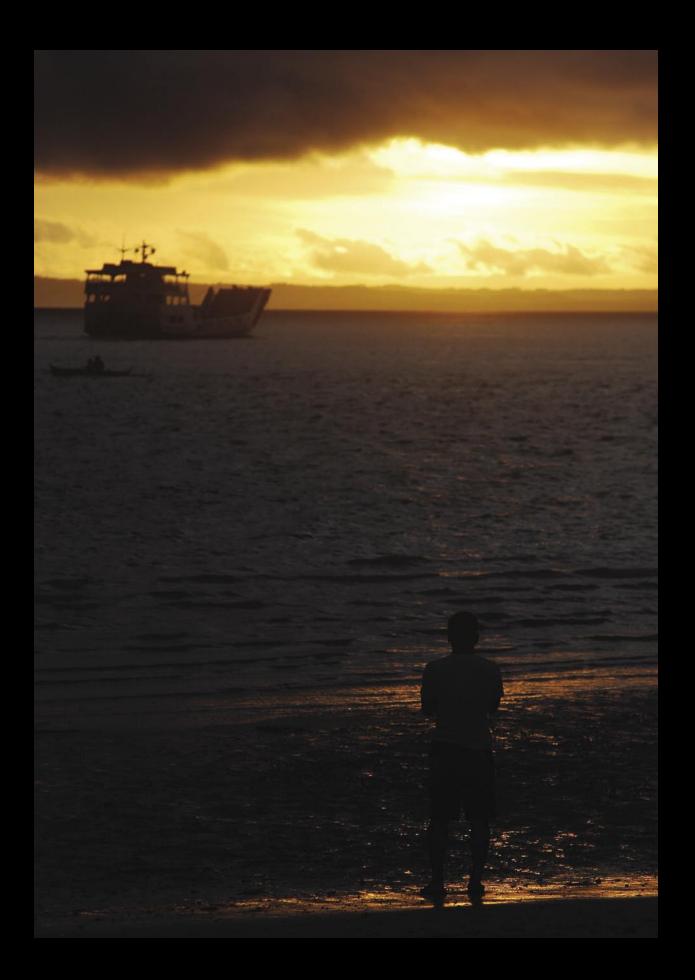




- Basilio, Enrico L. and Jennifer Llarena. Rolling On to Progress: The Road-RORO Terminal System (UA&P Industry Monitor 3 part series, 2003 & 2005)
- Basilio, Enrico L. and Rolando Dy. The Economic Impact of the Strong Republic Nautical Highway on the Transport of Agricultural Products through the Western Seaboard (CRC, 2006)
- Department of Transportation and Communications. RO-RO Action Program for 2008-2010.
- Executive Order 170 (s. 2003) Encouraging Private Sector Investments in the Development of the Road-RORO Terminal System (RRTS)
- Executive Order 170-A (s. 2003) Lifting the 50-nautical mile limit in the RRTS
- Executive Order 170-B (s. 2005) Allowing the Conversion of Private Non-Commercial Ports into Commercial Port Operations under the RRTS
- Japan International Cooperation Agency. Feasibility Study on the Development of RRTS for Mobility Enhancement in the Philippines (2007)

Philippine Ports Authority. Port Statistics (2003-2007)

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[EXECUTIVE ORDER NO. 170] January 22, 2003

PROMOTING PRIVATE SECTOR PARTICIPATION AND INVESTMENT IN THE DEVELOPMENT AND OPERATION OF THE ROAD ROLL-ON / ROLL-OFF TERMINAL SYSTEM

WHEREAS, it is the policy of the Government to reduce the cost of inter-island transportation through the establishment of an efficient and cost-effective Road Roll-on / Roll-off Terminal System (RRTS);

WHEREAS, the RRTS is the vital component of the Government's agri-fisheries modernization and food security programs the objectives of which are to raise the income of farmers and fisherfolk;

WHEREAS, the RRTS will also serve to enhance tourism, transportation and commerce throughout the country;

WHEREAS, there is a need to encourage the participation of the private sector in the establishment, construction and operation of RRTS facilities;

WHEREAS, the Philippine Ports Authority, the Cebu Ports Authority and the Maritime Industry Authority are the proper Government agencies mandated to reduce transport costs and improve the quality and efficiency of transport from the countryside to the urban markets;

WHEREAS, the Department of the Environment and Natural Resources is responsible for the issuance of Environmental Compliance Certificates;

WHEREAS, the RRTS is the component of the Sustainable Logistics Development Program of the Development Bank of the Philippines;

WHEREAS, there is a need to establish a new policy that will promote the development of the RRTS;

NOW, THEREFORE, I, GLORIA MACAPAGAL-ARROYO, President of the Republic of the Philippines, upon the recommendation of the Department of Transportation and Communications and the Development Bank of the Philippines and by virtue of the powers vested in me by law, do hereby order;

SECTION 1. Definition of terms - As used in this Executive Order:

- a. Roll-on / Roll-off or Ro-Ro Operations shall refer to the method of loading and discharging of self-powered vehicles, such as cars, and trucks, on their own wheels by their owners or drivers between vessel and shore via a ramp;
- b. Ro-Ro vessel shall refer to a ship type or design duly approved for Ro-Ro operations;
- c. Road Ro-Ro Terminal System (RRTS) shall refer to the network of terminals all over the country, separated by a distance of not more than fifty (50) nautical miles and linked by Ro-Ro vessels; and
- d. Lane-meter shall refer to one (1) meter of deck with a width of 2.5 to 3.0 meters.

SECTION 2. Integration of the RRTS with the National Highway System – To the extent permitted by law, the RRTS shall be considered as part of the national highways. Accordingly, vehicles that can be moved by their own power and passing through such links shall not be burdened by

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transport procedures and costs, unless otherwise provided by law. A Certificate of Public Convenience shall however be required for the operation of Ro-Ro vessels in accordance with law.

SECTION 3. RRTS Toll – The RRTS toll shall consists of the following:

- a. A terminal fee levied by the Ro-Ro terminal operator on vehicles and passengers for the use of the terminal;
- b. A passage fee levied by the Ro-Ro vessels operator on self-powered vehicles based on lane-meter;
- c. A passage fee levied by the Ro-Ro vessel operator on passengers; and
- d. A berthing fee levied by the Ro-Ro terminal operator on the Ro-Ro vessel for mooring or berthing at the Ro-Ro terminal

SECTION 4. *RRTS Documentary Requirements* – To the extent permitted by law, the Maritime Industry Authority (MARINA), Philippine Ports Authority (PPA), Cebu Ports Authority (CPA) and other concerned Government agencies shall ensure that the RRTS shall be covered by reduced and simplified documentary requirements. No clearance shall be required of motor vehicles using the RRTS: Provided, however, That the owners or operators of Ro-Ro vessels shall comply with the reporting requirements under Section 11 of the Anti-Carnapping Act of 1972 (Republic Act No. 6539).

SECTION 5. *Private Commercial Terminals* – The PPA and the CPA shall ensure that Ro-Ro terminals established and constructed through private investments shall be operated as private commercial terminals. The PPA and CPA shall likewise take concrete steps to privatize state-owned Ro-Ro terminals to attract investments in the RRTS.

SECTION 6. Environment and Business-Related Requirements of the RRTS - Where all the legal requirements have been complied with, relative to the construction and operation of RRTS facilities, the Department of Environment and Natural Resources shall issue Environmental Compliance Certificates within a period of forty-five (45) days therefrom, and the proper Government agency shall enter into foreshore lease agreements within a period of ninety (90) days therefrom. Local government units are strongly encouraged to issue the necessary permits for the operation of RRTS facilities within three (3) days from date of application. Likewise, the PPA, CPA and MARINA shall issue the permits necessary for the construction and/or operation of RRTS facilities within thirty (30) days from date of application.

SECTION 7. *Private Sector Financing for the RRTS* – The Development Bank of the Philippines shall make available long-term loan/financing to eligible projects and qualified borrowers under its Sustainable Logistics Development Program.

SECTION 8. *Implementing Rules and Regulations* – Within thirty (30) days from the effectivity of this Executive Order, the Department of Transportation and Communications shall formulate and, after public hearing and consultation, issue the Implementing Rules and Regulations for this Executive Order.

SECTION 9. *Effectivity* – This Executive Order shall take effect immediately upon approval.

City of Manila,

(Sgd.) GLORIA M. ARROYO By the President:

(Sgd.) EDUARDO R. ERMITA Executive Secretary

AMENDING EXECUTIVE ORDER NO. 170 DATED JANUARY 22, 2003 TO EXPAND THE COVERAGE OF THE ROAD ROLL-ON/ROLL-OFF TERMINAL SYSTEM

WHEREAS, by virtue of Executive Order (E.O.) No. 170 dated January 22, 2003, a new policy promoting the participation of and investment by the private sector in the development of the Road Roll-on/Roll-off Terminal System (RRTS) was established:

WHEREAS, under E.O. No. 170, the RRTS is defined as the network of terminals all over the country, separated by a distance of not more than fifty (50) nautical miles and linked by Roll-on/Roll-off (Ro-Ro) vessels.

WHEREAS, there is a need to expand the coverage of the RRTS to include long-haul Ro-Ro vessels so as to further support the agri-fisheries modernization and food security programs of the Government and to reduce the cost of inter-island transportation.

NOW, THEREFORE, I GLORIA MACAPAGAL-ARROYO, President of the Republic of the Philippines, by virtue of the powers vested in me by law, do hereby order:

SECTION 1. Section 1, subparagraph (c) of Executive Order No. 170 dated January 22, 2003 is hereby amended to read as follows:

"c. Road Ro-Ro Terminal System (RRTS) shall refer to the network of terminals all over the country, regardless of the distance covered and linked by Ro-Ro vessels; and"

SECTION 2. Section 3 of Executive Order No. 170 is hereby amended b addint thereto a new paragraph which shall read as follows:

"The RRTS toll shall be applicable to:

- a. All self-powered vehicles loaded and discharged on their own wheels by their owners or drivers between vessel and shore via a ramp; and
- b. All vessels to the extent that they are actually engaged in Ro-Ro operations."

SECTION 3. The Department of Trade and Industry and the Department of Transportation and Communications (DOTC) are hereby directed to formulate and submit for the approval of the President an incentive program for Ro-Ro vessel and terminal operators in pioneering, missionary, developmental or underdeveloped routes or links.

SECTION 4. Within fifteen (15) days from the effectivity of this Executive Order, the DOTC shall, after due consultation, issue the Revised Implementing Rules and Regulations for Executive Order No. 170, as amended.

SECTION 5. This Executive Order shall take effect immediately upon approval.

City of Manila,

(Sgd.) GLORIA M. ARROYO By the President:

(Sgd.) EDUARDO R. ERMITA Executive Secretary

Linking the Philippine Islands

ENCOURAGING FURTHER EXPANSION OF THE COUNTRY'S ROAD ROLL-ON/ROLL-OFF TERMINAL SYSTEM (RRTS) AND REDUCTION OF TRANSPORT COST THROUGH INCREASE IN THE NUMBER OF RORO-CAPABLE PORTS AND CONVERSION OF MORE PRIVATE NON-COMMERCIAL PORT OPERATIONS TO PRIVATE COMMERCIAL PORT OPERATIONS

WHEREAS, the various islands comprising the Philippine archipelago need to be efficiently linked together through a seamless system of land and sea transport that forms an integral part of the national highway network;

WHEREAS, Executive Order (EO) No. 170, dated January 22, 2003, promoted private sector participation and investment in the development and operation of the Road Roll-On/Roll-Off Terminal System (RRTS), whose coverage was expanded by EO 170-A, dated June 9, 2003;

WHEREAS, there are only 115 public ports and about 30 private ports operating commercially in the country, while there are more than 350 private non-commercial ports throughout the country that can be converted into private commercial ports and made part of the RRTS network;

WHEREAS, encouraging the conversion of private non-commercial ports into private commercial ports will expand the country's port system, reduce the investment requirements for building new ports, and entice greater private sector participation in the RRTS;

WHEREAS, Administrative Order No. 123, dated July 4, 2005, authorized the Secretary of the Department of Transportation and Communications (DOTC) Secretary to perform all powers and functions necessary to connect the country through the development of transportation networks such as the RRTS.

NOW, THEREFORE, I, GLORIA MACAPAGAL-ARROYO, President of the Philippines, by virtue of the powers vested in me by law, do hereby order:

SECTION 1. *Development of more RORO-Capable Ports.* All port authorities, like the Philippine Ports Authority (PPA), Cebu Ports Authority (CPA), Regional Port Management Authority (RPMA) and other independent port authorities, to continue the development of more Roll-On/Roll Off (RORO)-capable ports in strategic areas of the country to widen the coverage of the nautical highway program.

SECTION 2. *Transport Cost Reduction*. The port authorities and Maritime Industry Authority (MARINA) to ensure that the spirit and intent of Executive Order (EO) No. 170, series of 2003, as amended, to lower the cost of transport is reflected in the Road Roll-On/Roll-Off Terminal System (RRTS) charges, and that the reduction of cargo handling costs is passed on to the users in the form of lower freight rates: In no case shall the existing cargo handling charges be retained in any form or manner, such as, change in the nomenclature of the fee/charge; provided that cargo conforms with the prescribed operating norms for RORO where there is no participation and responsibility over the cargo attached to the cargo handler and/or terminal operator as contemplated in EO 170, as amended.

SECTION 3. Uniform RRTS Rates. All port authorities shall ensure that the said RRTS charges are applied uniformly to RORO cargoes in their respective ports catering to RORO operations;

SECTION 4. *Encouraging Conversion to Private Commercial Ports*. All port authorities to allow and encourage the conversion of private non-commercial ports into private commercial ports under the RRTS network. Proximity to and direct competition with a public port shall not be a valid cause for non-approval of any private port conversion; and

SECION 5. *DOTC as Lead Agency*. The Department of Transportation and Communication (DOTC) shall coordinate the activities of the aforementioned agencies, monitor their compliance with the directives under this EO and related issuances, seek the cooperation of the private sector and regularly report to the Office of the President progress of the government's program to realize the ultimate goal of bringing down transport costs.

SECTION 6. *Implementing Rules*. The DOTC shall issue the necessary rules and regulations to implement this EO within thirty (30) days after its publication.

SECTION 7. Separability Clause. If any provision of this Order is declared invalid, other provisions not affected thereby shall remain effective.

SECTION 8. *Repealing Clause*. All orders, issuances, or parts thereof, which are inconsistent with this Executive Order, are hereby repealed or modified accordingly.

SECTION 9. *Effectivity*. This Executive Order shall take effect fifteen (15) days after its publication in a newspaper of general circulation.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the Republic of the Philippines to be affixed.

Done, in the City of Manila this 19th day of September in the year of our Lord, Two Thousand and Five.

(Sgd.) GLORIA M. ARROYO By the President:

(Sgd.) EDUARDO R. ERMITA Executive Secretary



The Center for Research and Communication

Established in 1967, the **Center for Research and Communication** (CRC) is the oldest existing think-tank in the Philippines. Through the years, CRC has advocated for free market policies that promote economic freedom – competition, deregulation, good governance and greater private sector participation. In 1969, CRC was granted the permit by the Department of Education to offer graduate programs in industrial and business economics. The expansion of its academic programs led to the establishment of the University of Asia and the Pacific (UA&P) in 1995. In its institutional programs and activities, UA&P puts due emphasis on the individual, the family, the community, and the world. Each unit of the University thus strives to be a center of excellence, particularly in three areas: values formation, people development, and research and communication. These are the hallmark programs of UA&P as an educational institution.

In 1996, CRC was re-launched purely as a think-tank serving as the policy research and advocacy center of UA&P. Legally and financially, however, CRC operates as a separate institution from UA&P – duly registered with the Securities and Exchange Commission (SEC) with it own by-laws and set of Board of Trustees.

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The CRC Transport and Logistics Institute provides technical assistance to three important public-private councils concerned with transport and logistics infrastructure – National Competitiveness Council Infrastructure Working Group (NCC-IWG), Export Development Council Networking Committee on Transport and Logistics (EDC NCTL) and Pro-Performance System Steering Committee (PPSSC).

The CRC TLI Team at the Presidential Management Staff (PMS), composed of economists, engineers and lawyers, assists the Pro-Performance System Steering Committee (PPSSC) in monitoring almost 150 priority infrastructure projects. The Team visits project sites, conducts research on the problems/issues impeding the implementation and/or completion of the projects. The reports generated by the PPSSC Secretariat, with inputs from the activities of the CRC Team, are reported every week to the President and the Cabinet.

CRC TLI played an important role in the debate on key transport policies - RORO shipping policy, rescission of a policy promoting monopoly of the entire port system by a private consortium, and pocket open skies policy for Clark and Subic.



Arch. Joel Lopez

PROJECT CONSULTANTS



Engr. Ed Quintos



Engr. Melba Balcueva

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The Team

TRANSPORT AND LOGISTICS INSTITUTE RESEARCH TEAM



Enrico L. Basilio Executive Director



Jennifer C. Llarena MA in Business Economics UA&P (cand.)



Rafael Hernandez MS in Industrial Economics UA&P



Jeremiah Acena MS in Industrial Economics UA&P



Aurora Hidalgo MA in Urban Planning UP



Mary Grace Alcala AB Humanities (Industrial Economics) UA&P



Keene Antolm Calipara AB Humanities (Industrial Economics) UA&P

ADMINISTRATIVE STAFF

Lynne Marquez

PHOTOGRAPHERS

Richard Abrina Marc Ayes

EDITING

Byron Bicenio Ronald Mangubat

BOOK DESIGN Jimmy Hilario

INFORMATION GRAPHICS

Jeremiah Acena

PRINTING

Inkwell Publishing, Co. Inc. 10 San Pablo St., Bo. Kapitolyo Pasig City 1603 Tel. 634-3355 to 57

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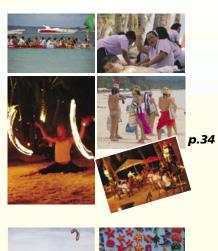




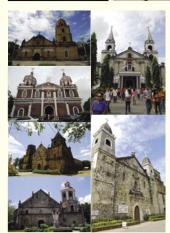


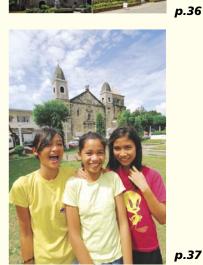




























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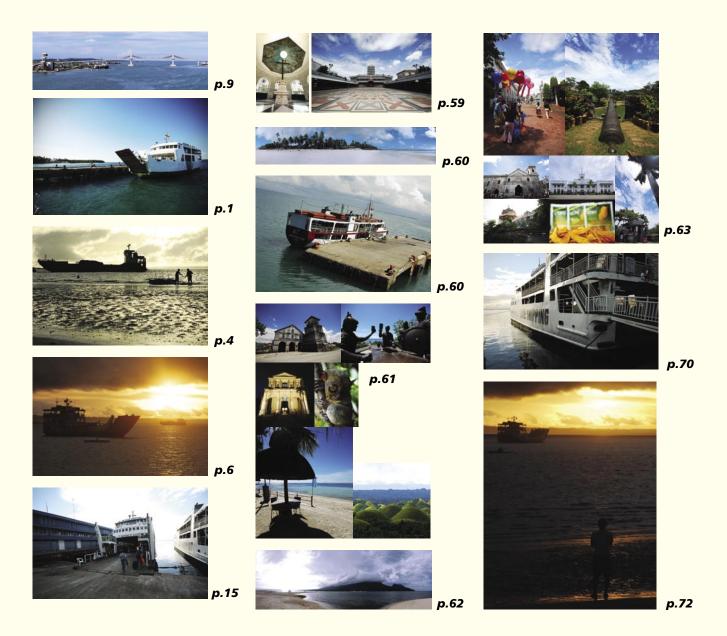
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About the Author



Enrico L. Basilio is concurrently the Executive Director of the Transport and Logistics Institute and Vice President for Finance and Administration of the Center for Research and Communication (CRC). He also teaches economics at the University of Asia and the Pacific (UA&P). Prof. Basilio serves in various public-private development councils. He is a member of the Agriculture Secretary's Technical Advisory Group (STAG), co-chair of the infrastructure Working Group of the National Competitiveness Council (NCC), EDC representative to the Pro Performance System Steering Committee, cochair of the Export Development Council Networking Committee on Transport and Logistics, private sector representative to the NEDA Board – Regional

Development Committee, representative of the Philippine Chamber of Commerce and Industry (PCCI) to the National Port Advisory Committee (NPAC), and Chairman of PCCI's Foreign Trade Sub-Committee. He is a Fellow of The Asia Foundation and Atlas Economic Research Foundation (USA) and a Trustee of the Industrial Research Foundation.

Prof. Basilio obtained a Bachelor of Arts degree in Economics (minor in Philosophy) from the University of Santo Tomas in 1985 and Master in Applied Business Economics degree from the University of Asia and the Pacific in 1995. He is currently pursuing his doctoral studies in Public Administration (DPA) at the University of the Philippines – National College of Public Administration and Governance (UP-NCPAG).

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