

AMAZON WATERWAY ENVIRONMENTAL AND TECHNICAL ASPECTS: Marañón and Amazon Rivers, Saramiriza – Iquitos – Santa Rosa section ; Huallaga river, Yurimaguas section – confluence with Marañón river; Ucayali river, Pucallpa section – confluence with Marañón river





THE AMAZON WATERWAY

Location: Loreto and Ucayali regions

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Description: Preparation of definitive studies , development of level measurement works, monitoring and trace channel of difficult passes between Huallaga, Marañon, Ucayali and Amazon rivers in order to ensure the navigability of these rivers 24 hours, all year round.

- Estimated investment (w/o VAT): US\$ 70 million
- Type of concession: Co-financed
- Concession period: 20 years

Current status: The Bidding Documents and the second project draft are approved.

Estimated date of award: Q IV 2016

Grantor: Ministry of Transport and Communication



NORTH AMAZON MULTIMODAL AXIS

Connecting the north coast of Peru with Brazil:

- It runs from the Pacific Ocean to the Brazilian Amazon.
- In Peru it crosses the regions of Piura, Lambayeque, Cajamarca, Amazonas, San Martín and Loreto favoring commercial dynamism in the North Eastern area of Peru with Brazil.
- The Amazon Waterway project will connect to the river port of Yurimaguas (granted in concession in 2011), the inter-oceanic highway IIRSA Norte (granted in concession in 2006), and the Port of Paita, Piura (granted in concession in 2009) providing a corridor from Brazil to the large Asian market and Australia.

New corridor to interconnect countries in the South Pacific and Atlantic regions



- Signaling and support to river navigation in critical areas need to be completed.
- Limited statistics and measurements of levels in rivers.
- There is no proper system of monitoring river conditions and restrictions.
- Inaccuracies in the determination of reference levels.











Objective:

 To implement projects and actions to improve navigability conditions in these waterways, for cargo-passenger traffic to be: efficient, cost-effective, safe and reliable 365 days a year.

Works:

- DREDGING works to ensure the depth and width of the navigation channel in critical areas (difficult passes) and the Access to Iquitos Port.
- Provision of information for navigation: through digital information loadable in a GPS.
- Installation of Level measurement stations with information transmission and spreading via web in real time.
- Set up of a MONITORING system of navigability conditions
- Provision of a navigation channel free of quirumas (logs).







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NAVIGABLE CHANNEL IN «DIFFICULT PASSES» DREDGING AND ACCESS TO IQUITOS HARBOR:

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- Channel depth: 8 feet in the Difficult Passes and 11 feet in the Access to Iquitos.
- Traditional width of the navigable channel: 44,56 and 60 meters depends of the section, if the section is straight or not.
- Design Draught: 6 feet in the Difficult Passes and 9 feet in the Access to Iquitos.



TECHNICAL APPROACH OF ACTIONS TO BE TAKEN BY THE CONCESSIONAIRE



Examples: interventions in the diffult passes of Santa Maria – Huallaga Rivers

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The task of the concessionaire, will consist in moving the arena to another sector within the same river to generate before bailing, a channel with appropriate conditions of navigability and whose location is known for boaters, which is advancing a process that river dynamics does naturally.

The channel section is very small in relation to the river bed , and not altered significantly hydraulics, slopes and river levels so.





Installation of a Digital Information System on the location of the waterway to allow satellite navigation (GPS), complementing the Aids to Navigation provided by the Direction of Hydrography and Navigation of the Navy.

Cartography and digital systems for river navigation system Amazonian

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File with the updated position of the shaft and channel veriles loaded into a browser or notebook with GPS





TECHNICAL APPROACH OF ACTIONS TO BE TAKEN BY THE CONCESSIONAIRE °O



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A network of 13 Limn metric stations will be installed along the rivers that form the river system.

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TECHNICAL APPROACH OF ACTIONS TO BE TAKEN BY THE CONCESSIONAIRE

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Establishing a Maintenance System and Monitoring of dredging, systems and aids to navigation network hydrometric stations .

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TECHNICAL APPROACH OF ACTIONS TO BE TAKEN BY THE CONCESSIONAIRE



Establish and develop Monitoring and Socio- Environmental Management and Contingency Plans to prevent contamination issues and other damages to the environment.





Private Investment Promotion Agency - Peru



It is expected that the cargo traffic, in neutral stage, will go from 3,25 million tons in 2013 to approximately 7,5 million in 2033



Ship traffic development, considering that 70 % of the ships are loaded up to 100 % and the other 30 % are loaded up to 50 %

PROJECT BENEFITS

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 Reduction of ships operating costs, freight and tickets by improving employability and performance of vessels (navigation throughout the year without groundings)

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COMPETITIVENESS

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• Spill and external impacts risk reduction as a result of accidents.

SOCIO-

ECONOMIC

Greater and better use of the various terminals in the area

 Greater opportunity for participation in more advanced logistics chains DEVELOPMENT

OF THE REGION

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Raises the level of service provided to passengers and cargo.

- Improved travelling time and safer journey.
- Reduces the level of loss of perishable products
- Increased reliability of the service allows travel and schedule planning, reducing freight variations and improving multimodal interconnection.



Legal Requirements

Simple copies of the Articles of Incorporation of the Applicant, legalized copy of the legal representative's power of attorney, sworn statements according to the Terms Annexes, simple copy of payment receipt (participation right), etc.

Financial Requirements

Prove a minimum net equity of US\$ 52.5 Million



- **Technical-operational Requirements**
 - **1. 10 years or more** minimum experience on dredging work (maritime and/or pluvial).
 - 2. Dredging works in pluvial waterways and/or pluvial navigation channels: **3 works** of **1.000.000 m3 each one (without limitation of seniority).**
 - 3. Volume of dredging works performed (maritime and/or pluvial): **1.000.000 m3** annual in average, in the last five (5) years.



Technical-operational Requirements

Have at least 3 own dredges with equal or higher characteristics than:

- 1. For cutter suction dredges (CSD): cut power 150Kw.
- 2. For drag suction dredges (TSHD): cantara capacity 450 m3.



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(*) This presentation has been prepared by PROINVERSIÓN for information for potential investors just to help them define their interest in participating in the process of granting the **AMAZON WATERWAY PROJECT.**

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