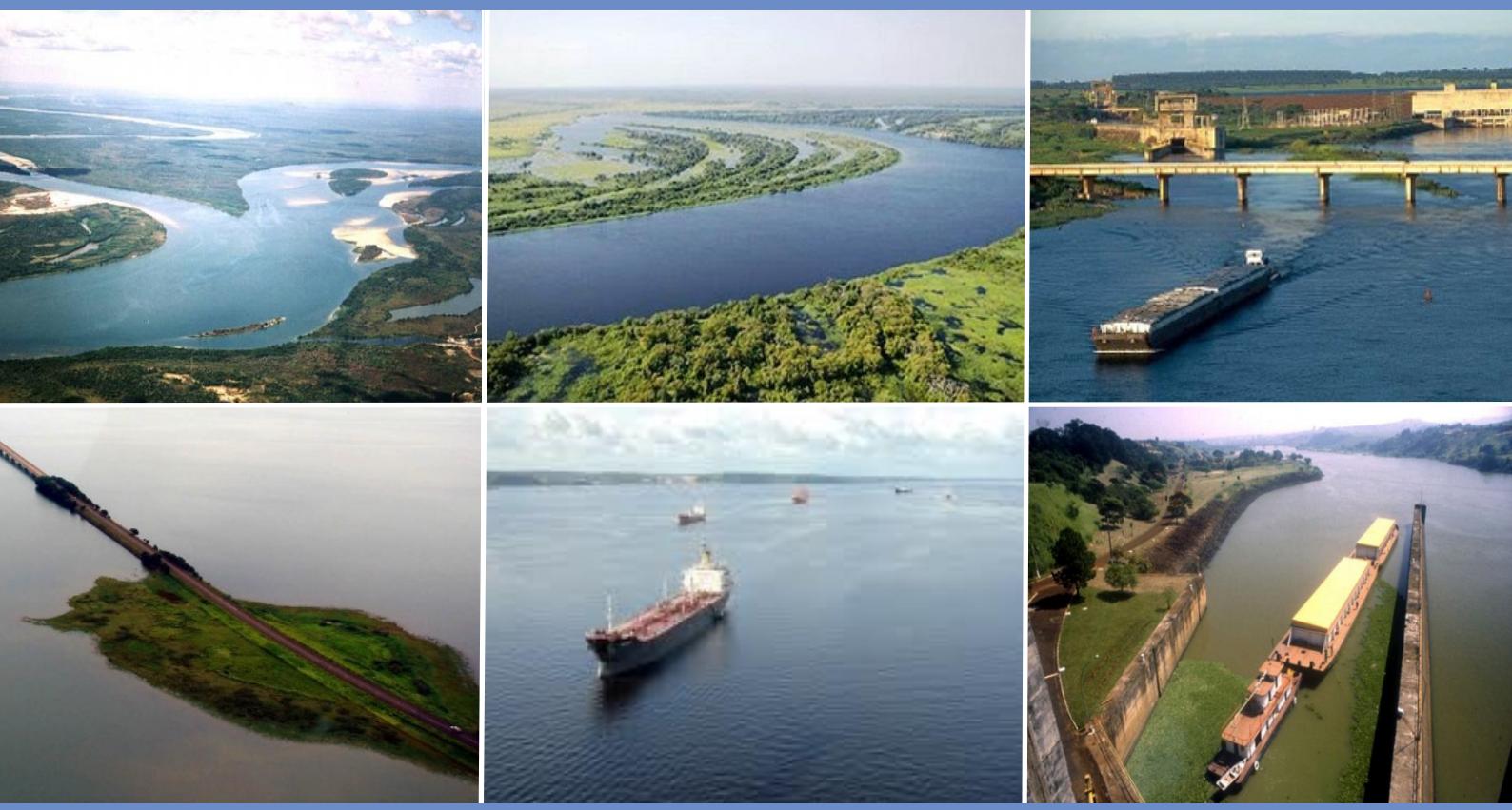
Ministério dos Transportes

PHE

Plano Hidroviário Estratégico

Inland Waterways Strategic Plan



Produto 2 - Relatório das Consultas Públicas: Consultas às Partes Interessadas

Product 2 - Public Consultation Report: Stakeholder Consultation

2013

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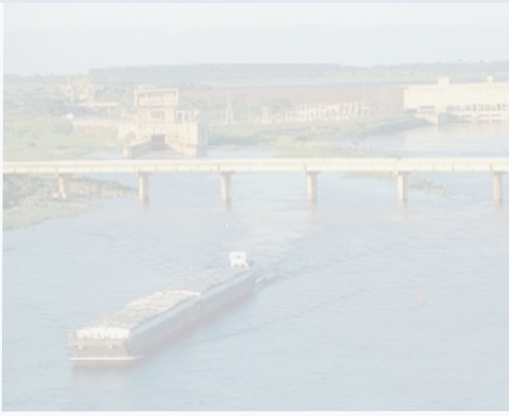


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República Federativa do Brasil

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President of the Republic

Ministério dos Transportes

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Minister of Transport

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Executive Secretary

Secretaria de Política Nacional de Transportes (SPNT)

Marcelo Perrupato
Secretary of National Transport Policy

Francisco Luiz Costa Baptista
Director of the Transport Planning Department

Luiz Carlos Rodrigues Ribeiro
General Coordinator of Planning

Technical Coordination Team

Eimair Bottega Ebeling
Infrastructure Analyst

Juliana Pires Penna e Naves
Infrastructure Analyst

Rone Evaldo Barbosa
Infrastructure Analyst

Technical Staff

Alexandre Vaz Sampaio
Eduardo Rocha Praça
Karênina Martins Teixeira Dian
Katia Matsumoto Tancon
Luiz Eduardo Garcia
Luziel Reginaldo de Souza
Marcelo Sampaio Cunha Filho
Mateus Salomé do Amaral
Rafael Seronni Mendonça

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SUMÁRIO

EXECUTIVE SUMMARY

The ARCADIS LOGOS consortium, through a joint effort with the team of the Ministério dos Transportes (Ministry of Transport) is preparing the Plano Hidroviário Estratégico - PHE (Waterway Strategic Plan – WSP) for the development of inland waterway transport (IWT) in Brazil

An analysis of the stakeholders was made within the scope of this project in order to identify their opinions on the current status of inland waterway transport and possible future improvements, as well as to assess their interest and influence. The results are used to validate the bibliographic research, an activity that is part of the evaluation and diagnosis phase. Furthermore, the results offered will help the Ministry of Transport to define the type of participation of the stakeholders in the process of implementing the measures that improve IWT.

The following investigation questions were formulated for the stakeholders:

1. What is the opinion of the major stakeholders on the current and future condition of inland waterway transport?
2. What are their demands?
3. What opportunities for improvement are identified?
4. Under what conditions would the stakeholders be partners in enhancing inland waterway transport?

Interviewed groups

Altogether, 67 stakeholders were interviewed and organized into 11 groups based on their different roles and responsibilities:

- Public sector: authorities from planning and the economy, monitoring and licensing, transport and ports and waterways, and port and waterway administrations.
- Private sector: service providers for inland waterway transport, industries and transport companies.
- Organizations and experts: sector organizations and the scientific community.

This report shows the more relevant matters for the work identified in the interviews in an itemized manner. For a better explanation of the considerations presented and the context in which they are inserted, we recommend reading the minutes of the meetings presented in a complementary report.

Current conditions and recommendations to improve river navigation

Those interviewed pointed out a wide range of opportunities and problems related to inland waterway transport, such as:

- Economic and financial aspects: the participation of inland waterway transport in the market differs from region to region and has a weak competitive position as compared to other transport modes;

- Transport aspects: lack of reliability, difficult market access, little attractiveness to investment, high fuel prices, shortage of crew members, high taxes, limited availability of new vessels, lack of adequate infrastructure (bridges, locks, terminals).

- Physical, environmental and social aspects: inadequate navigation conditions (absence of signaling and dredging activities), presence of rapids and [river] dams without locks.

- Governance and institutional aspects: restrictions by the environmental community, lack of resources, overlapping activities, and little communication between authorities, difficulties to obtain environmental licenses.

Moreover, those interviewed pointed out specific problems and development opportunities for IWT of the hydrographic regions: Amazonas, Tocantins-Araguaia, Parnaíba, São Francisco, Atlântico Sul, Uruguai, Tietê-Paraná and Paraguai.

Conditions and recommendations for stakeholder participation in the WSP

In order to obtain a better understanding of the conditions under which the stakeholders could be partners in the strengthening of IWT, the interests, influence and attitude of the groups on inland waterway transport are analyzed.

The interests of those interviewed in the development of IWT vary considerably among the different groups. For some of them the interest is formalized, that is, it is officially in their assignments and activities related to improvement of the system, while for others it derives from economic interests. The degree of influence also varies considerably and it was noted, for example, that institutions working at the federal level have more influence than those working regionally. As for attitude, on the other hand, most interviewed are positive with regard to the initiative of the Ministry to develop a strategy for inland waterway transport.

1 INTRODUCTION

1.1 PRESENTATION

The federal government of Brazil intends to foster inland waterway transport and consequently increase its contribution to the sustainable development of the Brazilian economy.

That is why the Ministry of Transport (MT) started the "Waterway strategic Plan" (WSP) project in July of 2012. The objective of this project is to draw up a strategic plan for the development of inland waterway transport through 2031. This strategic plan will be used by the Ministry in discussions with stakeholders and other government entities involved in inland waterway transport. The plan focuses on MT operations in the inland waterway transport area, but also encompasses the operations of other entities in order to integrate MT's transport policies with those of other sectors having an impact on the use of water resources. The plan will contain:

- The development goals in the areas of focus;
- A short, medium and long-term action plan;
  - interventions in infrastructure;
  - governmental, organizational and legal interventions;
- A WSP communication plan with stakeholders;
- A database.

The strategic plan will be prepared by the Arcadis Logos Consortium through a joint effort with the Transport Planning team of the Ministry of Transport.

The project is divided into the following steps:

- Step A: Work plan
- Step B: Stakeholders Consultation
- Step C: Evaluation and diagnosis
- Step D: Strategy preparation and evaluation
- Step E: Formulation of the Preliminary Strategic Plan
- Step F: Preparation of the Final Strategic Plan

This document contains Step B: Stakeholders Consultation. This activity was performed between July of 2012 and February of 2013.

1.2 OBJETIVES OF THE ANALYSIS OF STAKEHOLDERS

The report is intended mainly for the technical team of the Ministry of Transport. Its objective is to support the definition of a strategy, feasible and supported by the public, for the

improvement of inland waterway transport. This report also provides the technical team with information to validate the results of the analyses made in Steps C (Evaluation and Diagnosis) and D (Strategy Preparation and Evaluation).

The Term of Reference states the following objective for consulting stakeholders:

- Obtain expectations, contributions and comments in each of the river basins for preparing the diagnosis.

This objective is specified in the work plan:

- Identify the opinion of the stakeholders on the current situation, demands and restrictions to the use and development of inland waterway transport, possible solutions and other major criteria in order to present the view that inland waterway transport is a feasible transport alternative.

The information obtained in the interviews with the stakeholders will help the Ministry of Transport obtain a better understanding of the interests of stakeholders and their motivations. This knowledge is relevant for the development and implementation of the strategies referring to inland waterway transport. The attitude of stakeholders is also important to determine the effort required for communication by the Ministry of Transport and the message to be sent to stakeholders. The consultation helps to decide on the level of participation of stakeholders in the implementation of measures in favor of inland waterway transport.

1.3 QUESTIONS OF THE STUDY

The following investigation questions were formulated in the Work Plan:

1. What is the opinion of the major stakeholders on the current and future condition of inland waterway transport?
2. What are their demands?
3. What opportunities for improvement are identified?

1.4 CONTENT OF THE REPORT

This report emphasizes the main aspects discussed in the consultations with the stakeholders for each hydrographic region analyzed, according to the Term of Reference.

The next chapter (two) describes the methodology of the consultation with the stakeholders. Chapters three and four show the results of the consultation. In order to comply with the objectives of the consultations with the stakeholders, the results of the analysis were divided into two chapters. Chapter three contains an overview of inland waterway transport bottlenecks and stakeholder recommendations, offering both information at the macro level and the level inherent to the hydrographic regions studied. This information was used as an input to the WSP project.

Chapter four provides a brief evaluation of the interests and influences of those interviewed on inland waterway transport, thus offering information to help the Ministry of Transport schedule the strategies, specifically for definition of the type of stakeholder participation and the efforts required during the implementation phase.

The minutes of the meetings are presented in a separate report (confidential).

2 METHODOLOGY

2.1 INTRODUCTION

This chapter describes the methodology used to conduct the consultations with stakeholders. The criteria adopted to select the stakeholders for the study at issue are presented in section 2.2 and the method used to conduct the interviews is presented in section 2.3. The process used in the analysis of the interviews is described in section 2.4.

2.2 STAKEHOLDER SELECTION

To select the actors that should be consulted, the Term of Reference states the following:

- Main users and parties interested in inland navigation.
- By common consent with the Ministry of Transport, the stakeholders were also defined in three groups in the work plan (also see figure 1):
- Public sector: government institutions connected to the various aspects related to river use;
- Private sector: representatives / decision makers of the logistics chain;
- Organizations and experts: sector organizations and scientific community.

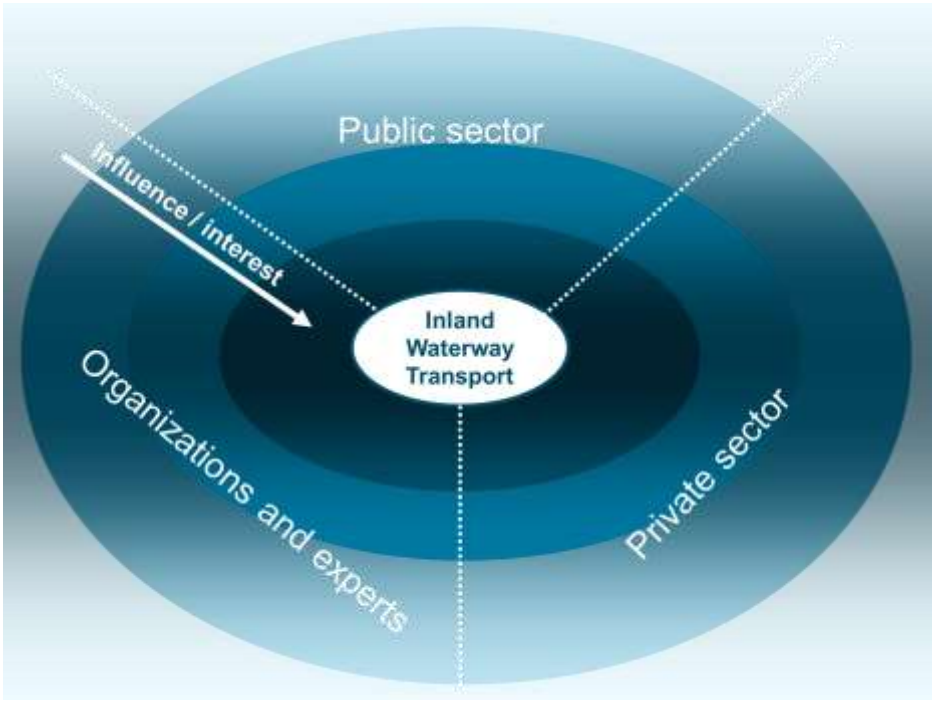


Figure 1 – Three major stakeholder groups

A long list of stakeholders was prepared through internet research, specific knowledge and professional contacts of the members of the consortium, and suggestions from the Ministry of Transport. A large number of organizations related to inland waterway transport are presented within the three groups (public, private, organizations and experts) in this list. The priority and relevance of the stakeholders was defined from this long list. The more relevant actors of the project, namely, those with direct interest in inland waterway transport and/or able to significantly influence the regional and national development policies of navigation, were first selected for the interviews. The actors selected belonged to the different stakeholder groups and were present in the various waterway systems, so that information was obtained from varied sectors in the different regions of the country. Representatives of the communities were not involved in this phase of the study since at this stage of the work there is no information on the interventions to be proposed and consequently on the impacts on local communities. Furthermore, considering that the WSP is a strategic level plan, it is understood that consultations with local stakeholders should be held at the time of the Technical, Economical, Financial, and Environmental Feasibility Study – EVTEA, when the relevant local stakeholders may be more accurately identified and, consequently, the alternatives for the interventions can be discussed.

The final list of those interviewed, presented in Table 2, was approved by the Ministry.

Altogether, 67 stakeholders were interviewed and organized into 11 groups based on their different roles and responsibilities (see table 1). The grouping was preliminarily defined at the interview planning phase and adjusted after the interviews were held. Its objective was to help analyze the information obtained during the interviews and the definition of the strategies, both for the communication to and participation of stakeholders in the implementation phase.

Table 1 - Groups of stakeholders defined by their roles/responsibilities

Main groups	Stakeholders:	Responsability
Organizations and/experts	Sector organizations	Represent the interest of a specific type of industry
	The scientific community	Contribute to current knowledge
Private Sector	Service providers to river navigation	Provide services to allow inland waterway transport (for ex.: dredging, naval construction, consultancy).
	Industries	Produce goods to sell in the market (worldwide)
	Transport companies	Provider passenger and cargo transport services for industries
Setor Público	Public authorities in the economy and planning areas	Develop and implement policies and regulations on spatial planning and to stimulate economic development
	Monitoring and licensing authorities	Develop and strengthen transport regulations and interventions on navigable routes through authorizations and licensing procedures
	Port administrations	Regulate cargo import and export
	Waterway administrations	Maintain waterways navigable for commercial navigation
	Port and river authorities (others)	Regulate and implement physical interventions related to inland watwerway transport
	Transport sector authorities	Develop and implement policies and regulations to improve the transport sector

Many companies and institution were consulted, but a large number of them did not respond. For this reason, those interviewed are not proportionally distributed among the groups of interest. Inland waterway transport is more used in the Amazonas region and the Tietê-Paraná waterway, consequently many stakeholders were interviewed in those regions. But the uneven distribution of the number of those interviewed in the different sectors and the different positions in the logistic chain does not represent the proportion of stakeholders in each region.

Considering the major groups, the private and public sectors are almost equally represented (29 and 28 interviewed, respectively). On the other hand, in the group of organizations and experts a much smaller number was interviewed (10).

At the macro level, the transport companies, the industries and waterway administrations are better represented.

There are also differences between the hydrographic regions. As compared to other regions (2-7), a larger number of stakeholders in the Amazonas (20), Tocantins-Araguaia (13) and Tietê-Paraná (14) regions was interviewed.

Consequently, the number of stakeholders interviewed by group and/or hydrographic region does not enable the formulation of generic statements, since the results may show a distorted perspective on specific topics. This report contains the topics taken from the interviews that were deemed more impactful on the study. The pertinence and relevance of these topics will be confirmed in the next steps of the work.

For a deeper knowledge of the content of the interviews, it is advisable to read the minutes of the meetings presented in a separate report, which is confidential.

Table 2 provides an overview of the 67 stakeholders interviewed, their respective groups, and their relationship with each hydrographic region. Two of those interviewed asked to remain unidentified.

Table 2 - Overview of the interviewed stakeholders, separated by groups of interest and the geographic area they operate in.

N°	Name	Complete name of the organization	National	Amazonas	Tocantins - Araguaia	Parnaíba	São Francisco	Atlântico-Sul	Uruguai	Tiétê-Paraná	Paraguai
01 Experts and sector organizations (7)											
A24	FAPERON	Federação da Agricultura e Pecuária do Estado de Rondônia		x							
E05	FIERGS	Federação das Indústrias do Rio Grande do Sul						x	x		
F07	Aprosoja	Aprosoja Brasil		x	x						x
G11	SINDIPEDRAS (SP)	Sindicato das Indústrias da Extração de Pedreiras do Estado de São Paulo								x	
H05	CNT	Confederação nacional do transporte	**x**								
H16	ABIOVE	Associação Brasileira das Indústrias de Óleos Vegetais	x								
H18	CNA	Confederação de Agricultura e Pecuária do Brasil	x								
02 Private Sector: Service providers for inland waterway transport											
A08	Maguari shipyard	Estaleiro Maguari		x							
E06	Gomes & Souza	Gomes e Souza Consultoria Administracao e Empreendimentos						x			
H11	Concordia Group	Concordia Group	x								
H15	Van Oord	Van Oord international dredging and offshore contractor	x								

Table 2 Overview of the interviewed stakeholders, separated by groups of interest and the geographic area they operate in. (continued)

N°	Name	Complete name of the organization	National	Amazonas	Tocantins - Araguaia	Parnaiba	São Francisco	Atlântico-Sul	Uruguai	Tiétê-Paraná	Paraguai
03 Private sector: companies (11)											
A10	ADM	Archer Daniels Midland Company		x	x					x	
A13	Cargill Foods	Cargill Foods		x						x	
A27	Motoliner	Motoliner Amazonas Ltda.		x							
C05	Suzano	Suzano Papel e Cellulose				x					
F03	Vale	Vale			x						x
F08	Bunge	Bunge Brasil S.E.		x						x	
G05	Transpetro	Transpetro		x						x	
G06	São Martinho	São Martinho Group								x	
G07	Caramuru	Caramuru Alimentos S.A.								x	
G10	Raízen	Raízen		x						x	
G12	Fibria	Fibria								x	

Table 2 - Overview of the interviewed stakeholders, separated by groups of interest and the geographic area they operate in. (continued)

No.	Name	Complete name of the organizations	National	Amazonas	Tocantins - Araguaia	Parnaiba	São Francisco	Atlântico-Sul	Uruguai	Tiétê-Paraná	Paraguai
04 Private sector: transport companies (14)											
A06	CNA	Companhia de Navegação da Amazônia		x							
A07	Hidrovias do Brasil	Hidrovias do Brasil								x	x
A09	Ecoporto	Ecoporto Praia Norte		x	x						
A11	Paes Carvalho	Grupo Paes Carvalho		x	x						
A12	Shipping Company[1]	Private shipping company		x							
A25	HERMASA	Hermasa Navegacao da Amazonia S.A.		x							
C04	PIPES	PIPES			x	x					
D04	ICOFORT	Icofort AgroIndustrial Ltda.					x				
E03	Laçador Navegação	Laçador Navegação						x			
E04	Aliança	Aliança Navegação e Logística						x			
F05	Naveriver	Naveriver Navegação Fluvial Ltda.									x
F06	SNBP	SNBP - Fluvialba S.A.									x
G03	Rumo Logística	Rumo Logística								x	
G04	Torque	Grupo Torque Ltda								x	
05 Public sector: Economy and planning (3)											
B02	SEPLAN (BA)	Secretaria do Planejamento do Estado da Bahia					x				
B03	SIC (TO)	Secretaria da Indústria e do Comércio do Estado do Tocantins			x						
C02	SEPLAN (TO)	Secretaria do Planejamento do Estado do Tocantins			x						

[1] This stakeholder has requested not to be identified.

Table 2 - Overview of the interviewed stakeholders, separated by groups of interest and the geographic area they operate in. (continued).

No.	Name	Complete name of the organization	National	Amazonas	Tocantins - Araguaia	Parnaiba	São Francisco	Atlântico-Sul	Uruguai	Tiétê-Paraná	Paraguai
06 Public sector: Monitoring and licensing (5)											
A19	SEDAM (TO)	Secretaria de Estado do Desenvolvimento Ambiental do Estado de Rondônia		x							
A23	CP[2]	Capitania dos Portos									
H13	IBAMA	Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis	x								
H19	ANA	Agência Nacional de Águas	x								
H20	ANEEL	Agência Nacional de Energia Elétrica	x								
07 Public sector: waterway administrations (9)											
A01	AHIMOC	Administração Hidroviária da Amazônia Ocidental		x							
A02	AHIMOR	Administração Hidroviária da Amazônia Oriental		x	x						
A03	CODOMAR	Companhia Docas do Maranhão	x								
B01	AHITAR	Administração Hidroviária do Tocantins e Araguaia			x						
C01	AHINOR	Administração Hidroviária do Nordeste				x					
D01	AHSFRA	Administração Hidroviária do São Francisco					x				
E01	AHSUL	Administração Hidroviária do Sul						x	x		
F01	AHIPAR	Administração Hidroviária do Paraguai									x
G01	AHRANA	Administração da Hidrovia do Paraná								x	
08 Public sector - Port administrations (1)											
A05	CDP	Companhia Docas do Pará		x	x						

[2] This stakeholder has requested not to be identified.

Table 2 - Overview of the interviewed stakeholders, separated by groups of interest and the geographic area they operate in (continued).

N°	Name	Complete name of the organization	National	Amazonas	Tocantins - Araguaia	Parnaiba	São Francisco	Atlântico-Sul	Uruguai	Tiétê-Paraná	Paraguai
09 Public sector: Ports and waterways (others) (5)											
A21	SOPH	Sociedade de Portos e Hidrovias do Estado de Rondônia		x							
A26	CPH	Companhia de Portos e Hidrovias do Estado do Pará		x	x						
G02	Departamento Hidroviário	Departamento Hidroviário Tiete-Paraná, Secretaria de Logística e Transportes								x	
H02/ H12	ANTAQ	Agência Nacional de Transportes Aquaviários	x								
H03	SOPH	Sociedade de Portos e Hidrovias do Estado de Rondônia		x							
10 Public sector: Transport (5)											
H01/ H14	DNIT	Departamento Nacional de Infraestrutura de Transportes	x								
H04	SFAT	Secretaria de Fomento para Ações de Transportes	x								
H17	SEGES	Secretaria de Gestão de Programas de Transportes	x								
H21	EPL	Empresa de Planejamento e Logistica	x								
-	SPNT[3]	Secretaria de Política Nacional de Transportes	x								
11 Scientific Community (3)											
A04	UFAM	Universidade Federal do Amazonas	x								
A22	UNIR	Universidade Federal de Rondônia	x								
F02	IMEA	Instituto Mato-Grossense de Economia Agropecuária	x								
		TOTAL	18	20	13	3	4	5	2	14	6

[3] The SPNT followed the entire process of developing the Strategic Plan for Inland Waterways - PHE and thus contributed in several meetings with relevant information to the work. Most of the information has been documented through emails and the insertion of comments in the preliminary reports and, therefore, the numbers of minutes were not listed in this table.

2.3 METHOD OF INTERVIEW

In agreement with the Ministry of Transport, individual interviews were organized with the stakeholders. Due to travel restrictions that the stakeholders, distributed in the different regions of the country, could have and the little time available for the consultations, a customized approach was used to obtain the information.

The interviews were held in a semi-structured manner by using a questionnaire (see Appendix 2) as an orienting tool for the subjects to be addressed without limiting them. This approach provided an environment open to discussion, a fact that permitted those interviewed to address the topics they judged more relevant.

The subjects addressed during the interviews were grouped into four pillars of the work (see work plan):

- Governance and institutions;
- Physical system of the river and environmental and social aspects
- Transport system;
- Economic and financial aspects.

An interview protocol was specified for each group of participants. For instance, in interviews with public administrations there was a greater focus on the "Governance and institutions" pillar, while transport companies provided more information relating to the "Transport system".

Preliminary versions of the minutes of the meetings were sent to the stakeholders, who were invited to comment and approve them.

2.4 METHOD OF ANALYSIS

The information contained in the minutes of the meetings was structured according to the four pillars also adopted in the analysis and diagnosis phase and to the issues defined for the consultation with stakeholder step (see section 1.3):

The following investigation questions were formulated in the work plan:

1. What is the opinion of the major stakeholders on current and future inland waterway transport?
2. What are their demands?
3. What opportunities for improvement are identified?
4. Under what conditions could they be partners in enhancing inland waterway transport?

The first three questions of the study refer to the opinions of the stakeholders. This information is directly provided in the interviews. Chapter three presents an overview of the opinions of those interviewed on the current status of inland waterway transport and their recommendations for future improvements.

The fourth question is addressed in Chapter four. Its objective is to obtain a better understanding of the conditions under which stakeholders could be partners in strengthening inland waterway transport, that is, their interests, influences and attitudes with regard to inland waterway transport and the WSP.

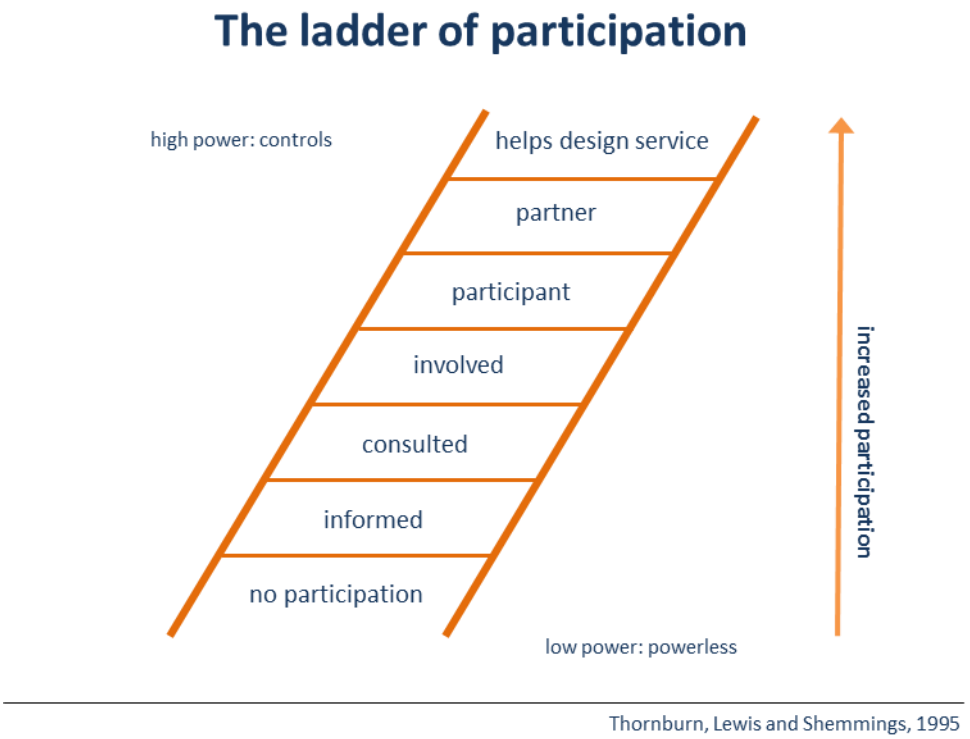
The interests of the different groups were identified through mission and/or view statements of the companies and institutions, which were made available to the general public. With this information, the degree of dependence and influence of the stakeholders on inland waterway transport was analyzed.

The influence of the stakeholders on the evolution (policies, regulations, etc.) of inland waterway transport was analyzed through the opinion of experts and information on their role and responsibilities.

Finally, the attitude of the stakeholders with regard to the WSP was analyzed. Are stakeholders positive with regard to the initiative of the Ministry of Transport to improve inland waterway transport? Why are stakeholders still skeptical? And how do the different stakeholder groups see their own involvement in the development and implementation of the strategies for inland waterway transport?

Information on stakeholder interests, influences and attitudes with regard to the development of inland waterway transport helps to determine the stakeholder participation level and role in the strategy development process. An opinion about the potential and adequate level of involvement of the groups is drawn up with the help of a “participation ladder”.

A “participation ladder” is a widely well known concept for structuring the results of a public consultation. The different rungs portray different participation levels and the level of power and control that stakeholders have on the process and results. As one reaches the top of the ladder, the power of the public in the decision process increases.



(Adapted from: Thornburn, Lewis and Shemmings, 1995)

Figure 2 – Drawing of the "ladder of participation" concept

3 CURRENT CONDITIONS AND RECOMMENDATIONS TO INCREASE INLAND WATERWAY TRANSPORT

3.1 INTRODUCTION

This chapter provides answers to the following investigation questions:

1. What is the opinion of the major stakeholders on current and future inland waterway transport?
2. What are their demands?
3. What opportunities for improvement are identified?

The items that follow provide an overview of the problems and opportunities related to inland waterway transport that were mentioned by the stakeholders. It must be noted that some of the recommendations offered are contradictory or suggested only by one interviewed entity. Thus, these recommendations will be better assessed over the course of the evaluation and diagnosis step, in which it will be possible to identify their pertinence and relevance to the work. Section 3.2 presents a description of the information provided at the macro level. This information is grouped pursuant to the four pillars of the study. The contribution of the stakeholders to the different hydrographic regions is shown In section 3.3.

3.2 THE MACRO LEVEL

3.2.1 The economic and financial aspects.

Topics related to the competitiveness of IWT stand out among those addressed by the stakeholders at the macro level.

The participation of inland waterway transport in the market differs from region to region for different reasons. In the North region there is a long network of rivers and few transport alternatives. Thus, inland waterway transport is intense in this region. In the Southeast region, in spite of greater competition among the modes, IWT has a relevant role in the logistic chain. Some stakeholders argue that, due to the absence of competition, the freight of inland waterway transport is higher in the North than in the Southeast, where there is higher competition between the modes.

It was stated that inland waterway transport has a smaller participation in the market partly because the sector is less innovative than the highway and railway sectors. The government, for instance, has been encouraging investment in the infrastructure of highway and railway modes through the concession of highways and railways, something that has not yet taken place in the waterway mode.

Costs of highway transport are expected to increase due to changes in the legislation affecting professional drivers in Brazil.

In some states the taxes charged for the use of different modes of transport are cummulative, thus making inter-modal transport more expensive. This situation shows the lack of incentives for use of inland waterway transport, since most of the time transshipment is necessary.

Recommendations of those interviewed.

- Reduce fiscal duties on inter-modal transport.
- Offer more subsidies to the actors involved in highway-railway-waterway transport to encourage multimodal integration.
- Prioritize investments in passenger transport as a social measure.

3.2.2 Transport System

The stakeholders addressed issues at the macro level that were grouped into five topics relating to the transport system pillar, namely: reliability, market accessibility, transport costs, fleet and infrastructure. An explanation of these topics is provided below.

Reliability

Although IWT costs are lower, there is possibly a lack of reliability in inland waterway transport when compared to other transport modes. Due to current navigability conditions, delivery times cannot be guaranteed.

Navigability conditions are not regularly monitored and the nautical charts available are not updated. Waterway administrations affirm they have a good understanding of the actions required to improve navigability conditions, but, in some cases, they lack information on the current hydrology of the rivers.

The waiting times at locks can be long and hydroelectric power plants cause variations in water levels of the rivers without ensuring minimum levels for navigation. Most water courses do not have any signaling, a fact that prevents night navigation.

Shipyards are able to increase their production and receive support from the federal government, but vessel production was mentioned as taking too much time for some investors.

Some stakeholders stated that they avoid transshipment due to the high risk of losing cargo as compared with the other modes of transport.

Recommendations of those interviewed.

- Conduct bathymetry on a regular basis and update the nautical charts
- Resolve delays (waiting time at locks) at the hydroelectric power plants.
- Improve management of the multiple water uses (energy generation, irrigation, human consumption and public supply), demanding, for instance, that hydroelectric power plants ensure minimum levels for navigation.

Market accessibility

It was stated that it is difficult for new investors to start operation or use of inland waterway transport. There are few transport companies operating in the rivers and those that use inland waterway transport have their own support infrastructure (terminals, supply stations, shipyards, etc.) Some stakeholders state that, in general, private terminals do not allow use by third parties and public terminals charge expensive tariffs. Bigger storage areas and terminals are required to improve accessibility at some hubs.

There is a shortage of specialized manpower for ferry navigation and port operation, partly due to the high demand of the offshore market (paying higher salaries). Due to lack of updated nautical charts, navigation depends considerably on the experience of the crew.

Some transport companies and port operators invest in the training of their crews. For some transport companies, the strict Brazilian labor legislation is a problem. The unions have great power that they use to pressure companies.

In general, Brazil lacks an inland waterway transport culture. Some of the consulted companies, for instance, believe that inland waterway transport is not interesting.

Recommendations of those interviewed.

- Create a river culture/environment including regulations for crews and vessels, safety rules, a supply network for the fleet, etc (good examples of this type of environment can be found in Western Europe, where the private sector has relevant participation).
- Draw up labor laws, less strict and more predictable, with smaller minimum crew demands for vessels.
- Restructure the training process adopted by the Navy.
- Reduce market domination by oligopolies in the inland navigation market and terminals.

Transport costs

According to the stakeholders, the greatest expenses in the operation of inland waterway transport are those for fuel and crews.

Transport companies operating in international rivers (Paraguai) tend to be foreign due to lower taxes and fuel prices and expenses for crews in neighboring countries. Moreover, some countries have less requirements, for instance, those relating to crew formation, a fact that ends up significant adding to IWT costs. The Registro Especial Brasileiro - REB (Brazilian special registration) encourages the adoption of the "Brazilian flag", but has limited impact.

Recommendations of those interviewed.

- Standardize waterway regulation in international (Paraguai, Uruguai and Argentina) rivers.

- Provide carbon credits for the use of waterways in order to encourage investment in IWT.

Fleet

In general, there is lack of vessel standardization and a shortage of barges in the market. Today there is a preference to acquire used Brazilian vessels instead of foreign ones. There are restrictions on importation of used vessels and the operation of imported ships is highly taxed.

In some cases tugboats do not have the necessary power.

Recommendations of those interviewed.

- Standardize vessels.
- Adapt vessels to river characteristics, not the opposite.
- Encourage national production of vessels.

Infrastructure

There is an overall lack of infrastructure for inland waterway transport. The rivers, due to their size, can accommodate the expansion of inland waterway transport, but the infrastructure along them (locks, bridges, terminals) may be a great obstacle to IWT expansion in some regions. Investments in infrastructure are necessary, such as the construction of locks and terminals.

Most terminals in operation are private; public terminals in general are not in good condition. It is noted that the public and private sectors are investing today in the implementation and improvement of terminals.

Recommendations of those interviewed.

- Recommendations for improvement of infrastructure per hydrographic region are presented separately (section 3.3).

3.2.3 Physical system of the river and environmental and social aspects

The stakeholders addressed the topics relating to the physical system of the river and the environmental and social aspects, namely: navigability conditions and environmental and social criticalities for future investments. An explanation of these topics is provided below.

Navigability

Navigability issues raised during the interviews are related to the particularities of the hydrographic regions (section 3.3). In general, rivers containing rapids and dams without locks are considered great restraints on the expansion of inland waterway transport. Investments in navigable routes are necessary, such as signaling maintenance and channel dredging.

In general, transport companies do not invest significant amounts in the improvement of navigable routes and in beaconage and signaling, and believe that these investments should be the government's responsibility. Taxes are duly paid for the government to schedule the

measures required to provide proper navigability conditions. Rivers with "intense" navigation today are those that demand few interventions (the exception is the Tietê-Paraná axis).

Many rivers have restrictions in the dry season and the capacity of barges during this time can be significantly reduced, as well as convoy size, since navigability conditions throughout the year are not ensured.

Recommendations of those interviewed.

- Implement a continuous maintenance program (dredging plan) that allows 24 hour navigation
- Draw up a concession program for river maintenance with a “no-cure-no-pay” format.
- Plan public investments in infrastructure for dredging, sedimentation control and signaling.

Environmental and social critical situations

According to some participants, the presence of indigenous communities can be an obstacle to the expansion of inland waterway transport when it impacts the communities’ way of life. In general, rivers cross areas of environmental importance. There is strong opposition from environmental organizations against the way the government intends to exploit navigable routes (without considering the impacts on local communities and the environment). This strong opposition increases the risk of investments in water courses and inland waterway transport.

Recommendations of those interviewed.

- Involve environmentalists in the preparation of policies as soon as possible.

3.2.4 Governance and Institutions

The stakeholders addressed two topics on governance and institutions at the macro level, which could lead to improvements in inland waterway transport, namely: institutional structure and transparency. An explanation of these topics is provided below.

Institutional structure

The institutional structure of the authorities involved in the inland waterway transport sector is perceived as uncertain (as compared, for instance, to the highway sector). The major problems stated are lack of resources and overlapping tasks. Waterway administrations need to implement improvements in water courses to allow inland waterway transport, but they usually do not have resources (financial and human) to achieve their tasks (this situation also occurs for the port administrations). There is a large number of local projects undergoing implementation/development, defined and planned in different regions by different public authorities.

However, they are not finalized due to lack of resources and/or delays in licensing procedures. The CODOMAR operates as an institution that transfers resources from the DNIT to waterway

administrations and offers legal assistance to administrators, but it does not have the structure to perform its tasks properly. As for licensing procedures, (for operation and interventions), there is no clear and defined protocol on what is to be licensed, and thus the process takes too long.

Moreover, it would be important to have greater interaction between the inland waterway transport and energy sectors so that initiatives can be proposed in a more coordinated way. With regard to management of the multiple uses of water resources, the Agência Nacional de Águas - ANA (the national water agency) has the management of grants as one of its priorities and, since inland waterway transport is not a consultive use, other uses end up receiving greater attention from the agency.

Recommendations of those interviewed.

- Define responsibilities in relation to the tasks and functions of the waterway administrations, the DNIT, the CODOMAR and the MT for the management of navigable routes (including the implementation of new infrastructure). Define either the DNIT or the waterway administrations as responsible for dredging.
- Create a Special Secretariat or some other department equivalent to the DNIT within the scope of the Ministry of Transport for the obtainment of more financial resources.
- Involve the transport companies, their information and demands, in the policy creation process.
- Better integrate waterway, highway and railway planning into an infrastructure investment plan.
- Improve cooperation among the environmental services.
- Integrate waterway projects into those of the other sanitation and energy sectors, among others.
- Organize official administration of the cartography and nautical charts.
- Inspect and monitor transport and mining companies.
- Create public-private partnerships (PPP) for waterway and lock maintenance and operation.
- Perform environmental control and supervision through specialized companies, preferably with a management model shared in the budget. For this, it is necessary to release resources promoting the inclusion/use of qualified companies.
- Use the CREMA -Contrato de Reabilitação e Manutenção de Rodovias (highway rehabilitation and maintenance contract) model adopted in highway maintenance and adjust it for navigable routes. Grant waterway works and maintenance for a five year period to private initiative. The waterway administrations would be responsible for inspection.

- Leave investment in terminals and vessels to the private sector.

Transparent legislation

The processes for the environmental licensing of the works to be undertaken in the waterways were mentioned as illogical; in other words, clear rules are lacking. Consequently, the waterways are treated in a differentiated manner in the process, with an excess of restrictions in some cases and no restrictions in other cases.

It was also stated that there is a great variety of institutions that must be consulted in the implementation process of, for instance, port terminals, something that makes the process slow and excessively complex.

Recommendations of those interviewed.

- Accelerate and simplify the process to obtain tax and license exemptions.
- Define a price reference table appropriate for waterways (the one provided by the DNIT does not meet the measurement criteria).
- Create a less bureaucratic environment for river transport with regard to regulation of vessels and safety, the fleet supply chain, etc.
- Create effective and homogeneous legislation in cooperation with MERCOSUL to resolve the current delays in execution of projects and the lack of maintenance activities in the navigable routes.

3.3 HYDROGRAPHIC REGION

3.3.1 Amazonas

Current status

The Amazonas region encompasses today the greatest part of inland waterway transport in Brazil. Besides the Amazonas, other important rivers in the region are the Madeira, the Teles Pires and the Tapajós. Waterway transport in the region is highly important due to the lack of transport alternatives. There are few highways or railways in the region. For passenger transport, inland waterway transport is seen as essential, since it is often the only option for connection of human settlements to urban centers. In the future, an increase in cargo transport in general is expected. One of the stakeholders predicted that implementation of the Teles Pires-Tapajós waterway will reduce transport costs by R$1.9 billion per year for the soybean industry. The region lacks investments in private and public port terminals to facilitate increases in grain and soybean production. Most ports used for handling large volumes of cargo are private. Investments in ports involve a long licensing process of about 4-5 years before they are approved. For preparation of the Environmental Impact Study (EIA) and the Environmental Impact Report (RIMA) alone, 2 to 3 years are needed. Moreover, there is shortage of vessels in the market to accommodate an increase in demand.

By further developing inland waterway transport in the Amazonas region, inter-modality can be achieved. The transport of goods through the Amazonas region can be an alternative to highway and railway transport in the South/Southeast region. It is mentioned as being highly important to enhance the development of the ports in the North region. The ports of Belém and Vila do Conde were mentioned by many of those interviewed as strategic locations and the port of Itaqui as a port with problems of capacity.

Specific issues mentioned about the Madeira River are the high variation of water levels caused by a combination of factors (rainfall, hydroelectric power plants, excess vegetation and sedimentation), and robberies of convoys with a high value cargo.

Generic recommendations of those interviewed.

- Allow the preparation of high quality studies by public entities for the determination of the real restrictions to river navigation.

Recommendations of those interviewed for the Amazonas region:

- Invest in waterway infrastructure (lock and port construction/enlargement): Construct specialized ports for soybeans and grains in the North and shipyards in Porto Velho; invest in the Port of Belém to resolve infrastructure problems.
- Invest in vessels for grains and soybeans.
- Increase channel maintenance (dredging, rock blasting, etc.).
- Invest in night signaling to allow navigating during this period.
- Make a larger number of inspectors available to control passenger transport. There are about a million vessels navigating in the Amazonas region, but only 60 thousand are regularized.
- Prioritize investments in passenger transport in the Amazonas region.
- Conduct hydrologic studies of the rivers.

Recommendations of those interviewed for the Madeira waterway:

- Construct locks at the Santo Antônio and Jirau hydroelectric power plants to allow the expand of inland waterway transport to the town of Guajará-mirim.
- Increase maintenance activities in the waterway (dredging, rock blasting, excess removal of vegetation).
- Improve signaling on the river.

3.3.2 Tocantins-Araguaia

Current status

The Tocantins and Araguaia Rivers are located in the North and Center-west regions of the country. The Araguaia River is not seen as a river with waterway potential due to its great importance to many traditional communities and as an environmental conservation area. Moreover, the Tocantins River runs mostly parallel to the Araguaia River and therefore, in addition to its physical characteristics, it is seen as most feasible to become a waterway. The major bottlenecks to navigation on the Tocantins River are the need for locks at hydroelectric power plants (existing and planned), rock formations in the river and the lack of signaling. Right after the municipality of Lajeado there are interferences with indigenous communities to be taken into account when executing works on the Tocantins River. Thus, just as for the Amazonas region, for the Tocantins River there is a lack of investment in private and public port terminals and in vessels to accommodate future demand.

Recommendations of those interviewed.

- Undertake rock blasting activities near the Tucuruí locks (Pedral de São Lourenço).
- Employ a discharge regime at the hydroelectric power plants (Serra da Mesa reservoir) to ensure a minimum draft for navigation.
- Construct the Lajeado and Estreito locks to ensure navigation throughout the year (double chamber to ensure navigation).
- Consider locks at the planned power plants in Marabá and Serra Quebrada.
- Install signaling to enable night navigation.
- Develop electronic nautical charts.
- Study the demand for the Guamá-Capim waterway.

3.3.3 Parnaíba

The great agricultural production would justify structuring the river to become a waterway between Santa Filomena and Teresina. Today, the river is navigable up to Uruçuí, but it needs beaconage and signaling. A lock at the Boa Esperança dam is under construction.

Recommendations of those interviewed.

- Increase maintenance activities (dredging and rock blasting).

3.3.4 São Francisco

The São Francisco River is not deep in the dry season, due to silting process caused by inadequate soil use and erosion of the banks. Constant maintenance works are necessary, but has not been happening. Various public terminals are not in operation.

The absence of shipyards can be a bottleneck for expansion of inland waterway transport in the future.

Recommendations of those interviewed.

- Increase maintenance activities (dredging and rock blasting).
- Improve management of multiple water uses (energy generation, irrigation, consumption and supply).
- Install and maintain the signaling.
- Modernize / improve the locks.
- Construct new terminal and maintain the current ones.
- Implement the waterway in steps, prioritizing the currently navigable stretch.

3.3.5 Atlântico Sul

In the Atlântico Sul region there is strong competition among the different transport modes. Today inland waterway transport is not seen as a reliable means of transport. The Atlântico Sul rivers have problems with their depths. Therefore, to control the depths of these rivers is a priority to ensure a reliable waterway transport system. There is a lack of signaling in rivers and lakes in the south, and port terminal infrastructure is not fit to accommodate an expansion of inland waterway transport. Also current vessels are not appropriate to transport containers.

The Jacuí, Ibicuí, dos Sinos, Gravataí and São Gonçalo rivers/Rivers, the Lagoa dos Patos and the Lagoa Mirim were mentioned as potential waterways. A depth of at least 2.50 meters must be kept in the Jacuí and Taquari Rivers (passage limit of the dams) and for the Lagoa dos Patos the minimum draft should be 5.20 meters.

Recommendations of thos interviewed.

- Increase maintenance activity (dredging and beaconage) in a permanent way.
- Construct barriers and structures to direct water flow.
- Develop nautical charts and the signaling of the navigation channel (Lagoa dos Patos) and install a set of luminous buoys (approx. 150) connected to the GPS navigation system of the vessels.
- Install signaling and lighting in buoys to allow night navigation (approx. 100 buoys in the Jacuí River, 100 in the Taquari River, 100 in the Jacuí River delta and Porto Alegre metropolitan region) and lighting with radar detectors.
- Develop a recovery plan for the banks of the Jacuí and Taquari Rivers and the Jacuí River delta (boca no Caí, Sinos, Gravataí Rivers and islands of Greater Porto Alegre).
- Develop/improve the Rio Grande sea port terminal.

- Improve/expand the infrastructure of the waterway terminals and sea ports.
- Modernize the fleet.
- Increase the dimensions of the locks in some regions of the Jacuí and Taquari Rivers and Jacuí River delta.
- Invest in port infrastructure for grain transport, such as quays and equipment.
- Conduct an independent technical study to check the status of the navigable waterways, for instance in Rio Grande do Sul.

3.3.6 Uruguai

The Uruguai River was addressed in interviews together with the rivers of the Atlântico Sul region and, since there is no commercial navigation on it today, no information relevant to the work was provided by those interviewed. For this reason, low expectations were noted with regard to implementation of a waterway in this region. Investments in dredging and signaling were stated as necessary.

Due to the fact that the Uruguai River is a river without borders, that is, international, some issues presented in the hydrographic region of the Paraguai River should also be considered in the hydrographic region of the Uruguai River. Like, for instance, the need to standardize navigation rules among the bordering countries.

3.3.7 Tietê-Paraná

In the Tietê River, lock dimensions and bridge configurations were mentioned to be among the greatest impediments to the development of inland waterway transport. Both the vertical clearance and span between columns of bridges are limiting factors and some improvements are already underway. In both situations, convoys must be split, negatively impacting travel time. Thus, inland waterway transport is not yet considered reliable.

Recommendations of those interviewed.

- Construct new terminals and expand the existing ones.
- Implement intermodal terminals upstream and downstream of Itaipu to make soybean, wheat and rice transport feasible.
- Expand the capacity of the existing locks (the Itaipu dam was specifically mentioned).
- Consider transport alternatives for Itaipu.
- Consider interconnection with the port of the Iguaçu River for intermodal connection.
- Consider the possibility of fuel transport along the Ivinhema River.
- Construct fixed tying places in the waterways to improve the action of the locks and use auxiliary vessels belonging to the DH to push the vessels.

- Analyze whether the Paranapanema, Tibagi and Chavantes Rivers are really feasible for navigation and/or have potential cargo volume.

3.3.8 Paraguai

The Paraguai waterway is close to the soybean production centers and has been cited as an option for cargo transport for export through Argentina. Today the Paraguai River has some depth problems. Therefore, to control the depth of these rivers is the major priority to ensure a reliable waterway transport system. Although navigation rules have been made international, there are still differences in the standards adopted (Brazilian vessels undergo a different certification process, for example). Transport companies tend to be foreign and consequently the vessels used also are.

Due to the presence of indigenous settlements in the vicinities of the stretch between Cáceres and Corumbá, it is mandatory today that any action intended for the Paraguai River be voted on by the National Congress. This situation stopped several studies and works underway in the Paraguai River. It has been commented that the environmental restrictions confronted go through illogical processes impacting the navigation system even of the countries along the Prata Basin.

Recommendations of those interviewed.

- Increase maintenance activities in the rivers and ports (dredging) to allow navigation during the dry period.
- Adjust the water intake of the river at Corumbá and at the highway (BR 262) and railway (Jacaré Passage) bridges to the south of Corumbá, restrictions that force convoys to split and require risky maneuvers.

4 GROUPS OF STAKEHOLDERS: CONDITIONS OF PARTICIPATION IN THE WSP

4.1 INTRODUCTION

This chapter provides an overview of the relationship of the different groups to inland waterway transport and the WSP Project, based on their interests, influences and attitudes. Thus, the chapter serves as a starting point to answer the fourth question of the study: Under what conditions could the stakeholders be partners in enhancing inland waterway transport?

The following paragraphs present the degrees of interest, influence and attitude of different groups of stakeholders, as estimated by the interviewers. Based on this information, an opinion of the experts on the type of participation that the different groups may have in the implementation process of the WSP is presented.

4.2 STAKEHOLDER GROUPS

As already presented in this report, interviewees were organized into 11 groups, divided into three main groups: public sector, private sector and sector organizations and experts. For each group, a brief description of the members is presented and the different degrees of interests, influences and attitudes to inland waterway transport evaluated.

4.2.1 The experts and organizations groups

The group of organizations and experts comprise the consulted sector organizations and scientific communities. In order to facilitate the displaying and comparison of the evaluation results, a table summarizing the results for each group is presented. Following the table, the issues that influenced the assessment of each group are presented.

Table 3 - Classification of the organizations and experts with regard to their interests, influences, attitudes and type of participation.

Group of interest	Interest	Influence	Attitude	Participation in the WSP
Sector Organizations	High	Great/High	Positive	Consulted
Scientific community	Low	Medium	Critical	Involved

Sector Organizations

In this study, the organizations of the sector are those that meet industry interests. They differ from the private companies because they direct their resources to the development and promotion of the sector they represent, influencing decision processes through new political regulations in their favor. Usually these organizations do not receive public funds.

The interests in inland waterway transport of the industrial sector organizations are similar to those of the industries themselves. Their purpose is to reduce the cost of production and raw materials transport. Their choice of railway, waterway or highway transport depends primarily

on the cost of these modes. Usually waterway transport will only be considered when the cost is competitive and the system is reliable. An organization in the sector mentioned the reduction of production transport and lower damage to roads with the reduction in the number of trucks as possible advantages of the development of IWT.

Sector organizations are relatively powerful and generally capable of influencing the development of inland waterway transport through lobbying high level public authorities and politicians. In general, large sector organizations have more influence than smaller organizations.

The sector organizations see a potential to expand inland waterway transport partly due to new professional driver regulations that will have a direct impact on the cost of the highway transport mode.

Inland waterway transport is not a feasible solution for all industries. The union for the crushed stone mining companies located on the Tietê-Paraná waterway system, for instance, concluded a feasibility study whose conclusion was that inland waterway transport was not a competitive option in the near future.

Some sector organizations are willing to engage in the process of developing strategies for inland waterway transport. They do not have resources to contribute to implementation of any specific physical intervention.

The scientific community

The scientific institutions consulted are working on research projects related to river navigation. The results of their research aim to contribute to a better understanding of the working regime of inland waterway transport.

The Universidade Federal do Amazonas (UFAM) and the Universidade Federal de Rondônia (UNIR) have some influence on the development of inland waterway transport. These universities receive funds from the federal government to conduct studies on IWT and the physical system of the rivers and, therefore, have experience and knowledge that may contribute to the development of policies by the Ministry of Transport.

The scientific community is critical about the role and approach of the Ministry of Transport for the development of IWT. One of the institutions, for example, commented that the solution of navigation problems in the state of Rondônia is made difficult by the government's lack of dialogue.

4.2.2 The Private Sector

The private sector comprises the consulted service providers, industries and transport companies groups. In order to facilitate the displaying and comparison of the assessment results, a table summarizing the results for each group is presented. Following the table, the issues that influenced the assessment of each group are presented.

Table 4 - Classification of the private sector with regard to interests, influences, attitudes and type of participation.

Group of interest	Interest	Influence	Attitude	Participation in the WSP
Service providers for IWT	High	Little	Positive/Critical	Informed
Industries	Medium	Medium	Positive	Consulted
Transport companies	High	Medium	Positive	Informed

Service providers for inland waterway transport

The service providers consulted, which include dredging companies, shipyards and consultancy companies, are deeply interested in the development of inland waterway transport, since the increase of activities related to IWT creates business opportunities for them.

The influence of the service providers on the development of IWT is limited, since they have little political power and few means to implement their own projects.

Service provider expectations with regard to the future status of inland waterway transport differ from region to region. In the South of the country a stakeholder was skeptical with regard to the effort of the Ministry of Transport to develop inland waterway transport in the Southern region. In comparison to other transport modes, inland waterway transport is not seen as competitive and market accessibility for new operators is restricted. For the providers, lack of political commitment and the absence of a waterway strategic plan were mentioned as the major institutional bottlenecks for the development of inland waterway transport.

In the Northern region, one of the stakeholders expects inland waterway transport to develop even more in the region. Today, the demand for vessels is more focused on grain and soybean transport, but there is a growing demand for other types of vessels, such as those used in the transport of liquid bulk and roll-on roll-off ships.

Industries

The industries group consists of various producers that need transport services. The industries may decide to transport their goods using their own means of transport or use the services of logistics companies.

The interest of the industries in the development of inland waterway transport is related to the competitiveness of this transport mode, which can vary from one place to another. One of the stakeholders mentioned that, due to less competition among the modes, transport is relatively more expensive in the North region. For this reason, industries located in the North region are generally more interested in the development of inland waterway transport than, for example, those in the South and Southeast regions, where highway and railway modes are more developed.

The problems experienced with the use of the other transport modes may also increase the competitiveness of inland waterway transport. Moreover, the competitiveness of inland

waterway transport for an industry depends on whether it uses its own fleet to transport production or not. Companies having their own fleets invest in the exploitation of navigable waterways and therefore show greater interest in the development of waterway transport as compared to the industries, which only contract services of logistics companies. In this last case of service contracting, the interest in the waterway mode relates directly to the possibility of cost reduction.

The influence of industries on the development of inland waterway transport is quite high. In general, large industries connected to mining and extraction activities, as well as the production of oil and its derivates, have greater political power and consequently greater influence on the development of inland waterway transport. When public institutions do not meet the minimum requirements of large industries to allow commercial navigation on certain rivers, in some cases these industries make the necessary interventions on the navigable routes with their own resources.

In general, the industries see inland waterway transport as a growing market, although the intensification of this mode in some regions is mentioned as more feasible than in others. Most industries support the initiatives of the Ministry of Transport to develop inland waterway transport.

Transport companies

The transport companies are logistics operators that use waterways as a means of transport and shipping companies. The companies that work also with the other transport modes (highway, railway) and are considering the use of inland waterway transport in the future are also mentioned in this group.

The transport companies consulted are in general highly interested in inland waterway transport. Investments in this transport mode will improve competition conditions, creating business opportunities for the companies already operating there.

However, if the development of IWT results in many companies accessing the commercial navigation market, the market participation of the current transport companies may be threatened.

Many transport companies, especially the larger ones, have their own support infrastructure (terminals, shipyards, supply stations, etc.), therefore the development of inland navigation, including the necessary infrastructure, does not necessarily interest the large transport companies. The large size transport companies consulted, most of which are concentrated in the Amazonas region, have greater influence in the development of inland waterway transport, whether through political influence or their own investments.

Transport companies provide transport services for industries and see opportunities for inland waterway transport by improving modal integration, whether with the highway or the railway mode or both. One of those interviewed reported that the highway lobby is weakening, while that of railways is gaining steam. This trend is also described in the investment plans of the government, like the Programa de Aceleração do Crescimento – PAC (growth acceleration

program) and the Plano Nacional de Logística e Transporte –PNLT (national logistics and transport plan).

The transport companies normally support the initiatives of the Ministry of Transport to improve the status of inland waterway transport in their area of operation. There is, however, some skepticism regarding the political priorities of the MT, since the investment plans are still concentrated on the South and Southeast regions and many planned investments have not been implemented due to the Ministry's lack of political force.

4.2.3 The Public Sector

The public sector comprises the groups of waterways and port administrations, licensing and monitoring authorities, authorities involved with ports and waterways (others) and authorities of the economy and planning areas and transport sector groups. In order to facilitate the displaying and comparison of the assessment results, a table summarizing the results for each group is presented. Following the table, the issues that influenced the assessment of each group are presented.

Table 5 - Assessment of the public sector with regard to interests, influences, attitudes and type of participation.

Group of interest	Interest	Influence	Attitude	Participation in IWT
Waterway administrations	High	Medium	Positive	Participant
Port administrations	High	Medium	Positive	Participant
Licensing and monitoring authorities	Medium	High	Unknown	Partner
Ports and waterways (others)	High	Medium	Positive	Involved
Economy and planning	Medium	Little	Positive	Involved
Transport	Medium	High	Positive	Partner

Waterway administrations

Waterway administrations are responsible for execution of the activities necessary for waterway use. These include improvement and maintenance works and the establishment of commercial navigation. They are executive agencies within the scope of the Ministry of Transport/DNIT with competence over the navigable routes within their respective jurisdictions. Although ODOMAR is not a waterway administration, it was inserted into this group for the purpose of this analysis. Due to the agreement between the DNIT/DAQ and CODOMAR, all waterway administrations are connected to the DNIT through CODOMAR. This company manages the transfer of funds between the DNIT and the waterway administrations.

CODOMAR is responsible for the transfer of funds from the Ministry of Transport/DNIT to the waterway administrations. These transfers are often made difficult by the current structure, where all the administrations have to present a report on their expenses. None of the administrations receives funding until all of them have presented their reports.

Waterway administrations have little influence on inland waterway transport. They do not have resources (personnel, financial) to carry out their assignments properly, they do not operate at the strategic level and they have little connection with the decision makers. Waterway administrations depend on the DNIT and CODOMAR in the decision making process.

The administrations are positive with regard to the development of inland waterway transport. They see potential for the increase of commercial navigation conditions but also point to the need for improvements in the government structure for water course management. There are today a number of institutions responsible for waterway management whose responsibilities are dispersed and this situation leads to inefficiency.

Waterway administrations consider their involvement in the development process of the strategic waterway plan important and would like to have greater participation in the decision making process. They affirm they have a good understanding of the actions required to improve inland waterway transport system.

Port administrations

Port administrations are responsible for the operation and administration of port activities. They are authorities which act regionally and have jurisdiction over specific ports.

In general, regional port administrations have little influence on the development of inland waterway transport. The work is concentrated at the operational level, accounting for the collection of storage duties and port access (waterways and highways), filing of loading and unloading records and respective volumes and conduction of inspections. Should a private investor want to construct a new port, the dock companies have to be informed and consulted.

The port administrations interviewed are in general positive with regard to the development of a national strategy for inland waterway transport, indicating that the country needs a strategic view for the logistics sector.

Licensing and monitoring authorities

The monitoring and licensing authorities involved in inland waterway transport are responsible for the concession of licenses to any organization wanting to make interventions or operate services on the navigable waterways and for compliance with the legislation pertinent to these services (navigation, environment and crew). The licensing authorities verify whether the plans comply with environmental requirements, while the controlling authorities impose demands on navigation. Licensing authorities have great formal influence on the development of inland waterway transport and are responsible for the concession of licenses for interventions in the waterway and port infrastructure. Some groups believe that the current environmental licensing procedures restrict the development of inland waterway transport.

Ports and waterways (others)

This group is formed by public institutions of the Ports and Waterways sector that work in the planning and implementation of waterway and port policies. In this group, some interviewees work at the federal level but others at the regional level. The distribution of tasks and responsibilities among these institutions has been fragmented and in some cases they overlap. The stakeholders at the national level, especially those working in the public sector, have great influence on the development of inland waterway transport.

Mainly at the regional level, the institutions have invested in the development of projects to improve navigability conditions and expand and improve port infrastructure, among other things.

Economy and Planning

The public institutions interviewed in the economy and planning area work in the planning, coordination and implementation of regional development policies and plans.

These institutions are positive with regard to the IWT project to the development of inland waterway transport. However, some of those interviewed still criticize the work of the Ministry of Transport on inland waterway transport over the latest decades. They affirm that there is little government intervention in the navigable waterways, which lack regular maintenance, and that the government is not able to guarantee minimum quality to IWT, a fact that has been making navigation difficult.

Transport

The authorities in the transport sector are responsible for management and supervision of projects in that sector, that is, they act on the different transport modes. DNIT/DAQ's main assignment, for instance, is to improve waterway infrastructure, granting authorization for the construction of port terminals and interventions in waterway infrastructure. Some of those interviewed commented that DNIT does not give due priority to the implementation of the measures necessary for the expansion of inland waterway transport because it traditionally focuses on the improvement of the highway mode.

Transport authorities pointed out the importance of modal integration; that is, of the waterway, highway and railway modes as the logistical solution for the country.

4.3 CONDITIONS AND RECOMMENDATIONS FOR STAKEHOLDER PARTICIPATION IN THE WSP

In order to obtain a better understanding of the conditions under which the stakeholders could be partners in strengthening of IWT, the interests, influences and attitudes of the stakeholders interested in inland waterway transport and the WSP were analyzed. The different groups of interest, influence and attitude observed in the interviews are presented below in a succinct manner, and they will help in the development of the next steps of the work. This analysis helps to identify the priority issues to be considered in the diagnosis, as well as the groups and their interests that may significantly influence the feasibility of certain strategies.

Interest

The interest that the consulted institutions have in the development of inland waterway transport varies considerably among the different groups. For public institutions, interest in development is formalized through their responsibilities, while for private companies interest in IWT is restricted to their economic interests in the regions in which they operate; these regions may benefit from the expansion and increase of IWT. The public institutions most interested were those operating directly on waterways and ports.

Influence

The licensing and monitoring authorities and public institutions in the Ports and Waterways and Transport sectors, usually have the greatest influence on the evolution of inland waterway transport.

Waterway administrations, sector organizations and the scientific community have medium influence. IWT service providers and institutions connected to the planning and economy sectors have little or no influence.

It was noted that public institutions operating at the national level have greater influence than those operating at the regional level, like the waterway administrations. According to the stakeholders, this is not a favorable situation because the waterway administrations, for example, have better insight into the needs and potentialities of the region, a fact that helps the development of more effective policies and projects.

Attitude

Most stakeholders have a positive attitude towards the initiative of the Ministry of Transport to develop a strategy for inland waterway transport. They embrace greater integration of the different sectorial plans (for instance, river management plan, logistics plan) with the strategy of inland waterway transport and see it as a growing market (cargo). The stakeholders mentioned the critical role of the Ministry in inland waterway transport over the last decade(s). They affirm that the Ministry invested little and did not take on the responsibility of adequately encouraging inland waterway transport.

The power and interest of the different stakeholder groups can be seen in the figure below.

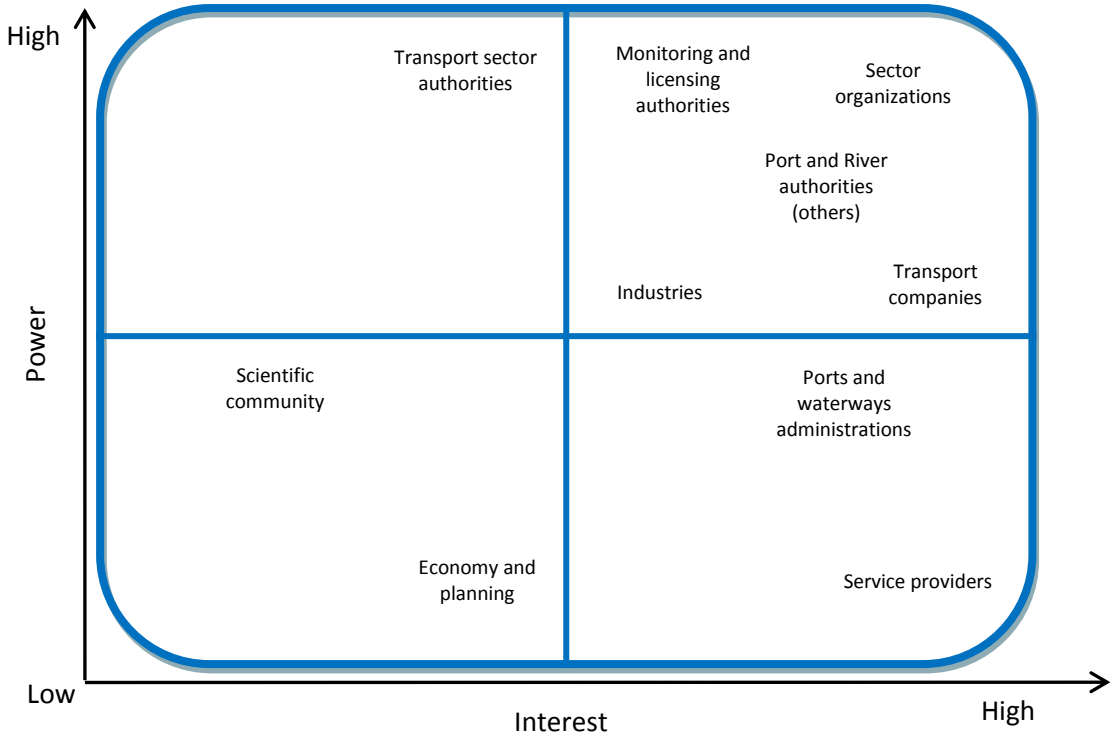


Figure 3 - Power and interest of the groups

5 CONCLUSIONS

The information presented and the analyses made in this report do not enable the formulation of generic statements since the results may show a distorted perspective of certain topics. The information is often conflicting and reflects the interests of the various groups, and for this reason must not be directly considered for characterization of the current IWT system without a more detailed prior analysis of the topics. For this reason, the information and recommendations gathered will be the object of deeper analyses and checks in Step C: Evaluations and Diagnoses of this Work.

The interviews enabled the collection of a wide range of information extrapolating the initially defined purposes of this step of the work. Through the interviews it was possible to identify topics that were relevant to IWT and should be addressed in future steps of the work, as well as ongoing or concluded plans and studies which could contribute to the work and the availability of relevant data. They also enabled refining the list initially prepared of the major stakeholders to be consulted.

The 67 stakeholders consulted enabled a good understanding of the opinions of those interested and the requirements and restrictions of the current IWT system. It was noted that the recently conducted interviews provided a limited contribution to the work since the more relevant matters had already been addressed.

Part of the information provided is contradictory and for this reason one should not consider the information herein presented as a conclusion of the topics addressed. For a better explanation of the considerations presented and the context in which they are inserted we recommend reading the minutes of the meetings presented in a complementary report.

It can be noted in the minutes that some contain a wide range of relevant information and others are quite succinct. In most cases they reflect the interest and time available of those interviewed in the meetings that were held. Preliminary versions of the minutes of the meetings were sent to those interviewed, who were invited to comment and approve them. It is worth mentioning that many of those interviewed did not confirm their approval.

APPENDIX 1 - LIST OF STAKEHOLDER INTERVIEWS

No.	Organization	Representatives	Interviewers	Date and location of interview
A1	AHIMOC	Alessandra Barroso	Pamela Tancredi Luiza Azevedo Maurizio Raffaelli	06/11/12 Manaus - AM
A2	AHIMOR	Albertino de Oliveira e Silva	Adriana Vivan de Souza Luciana Unis Coentro	10/10/12 Belém - PA
A3	CODOMAR	Lusivaldo– Assessor da Diretoria De Engenharia e Operações	Maurizio Raffaelli Luciana Coentro	03/10/12 São Luiz - MA
A4	UFAM	Nilson Barreiros Jussara Maciel Nelson Kuwahara	Maurizio Raffaeli Pamela Tancredi Luiza Azevedo	07/11/12 Manaus - AM
A5	CDP	Carlos J. Ponciano da Silva - Presidente	Luciana Unis Coentro	09/10/12 Belém - PA
A6	Companhia de Navegação da Amazônia - CNA	Luciana Salgado - Planejamento	E-mail - questionário	12/09/12 Belém - PA
A7	Hidrovias do Brasil	Moacir Bianchini Mariana Yoshioka	Adriana Vivan de Souza Alice Krekt Ben Smeenk Clarissa Yebra Jos Helmer Luiza Azevedo	27/08/12 São Paulo - SP
A8	Estaleiro Maguari	Fabio. R. A. Vasconcellos	Adriana Vivan de Souza Luciana Unis Coentro	10/10/12 Belém - PA
A9	Ecoporto	Sandra Kramer Adrian da Silva Melquisedeque Côrrea	Adriana Vivan de Souza Luciana Unis Coentro Clarissa Yebra	01/10/12 Palmas - TO
A10	ADM	Luiz Fernando H. de Siqueira – Gerente de hidrovia	Alice Krekt Clarissa Yebra	25/10/12 São Paulo - SP
A11	Paes Carvalho	Eduardo Lobato Carvalho	Pamela Tancredi Luiza Azevedo Adriana Vivan de Souza	10/12/12 Belém - PA
A12	Empresa de Navegação			
A13	Cargill	Marcio Burgardt – Gerente de operações de logística	Pamela Tancredi Clarissa Yebra	01/11/12 São Paulo - SP

No.	Organization	Representatives	Interviewers	Date and location of interview
A19	SEDAM (RO)	Miguel Penha	Priscilla Paulino	31/10/12 Porto Velho - RO
A21	SPOH	Ricardo Vieira – Superintendente Gilson Castro de Moraes Capitão Amilton Rodrigues Eleotero	Priscilla Paulino	01/11/12 Porto Velho - RO
A22	UNIR	Prof. Doutor Dorivander Nunes	Priscilla Paulino	01/11/12 Porto Velho - RO
A23	Capitania dos Portos			
A24	FAPERON	Francisco F. Cabral - Presidente	Adriana Vivan de Souza Maurizio Raffaelli	22/11/12 Porto Velho - RO
A25	HERMASA	João Roberto Zamboni - Diretor	Pamela Tancredi Clarissa Yebra Luiza Azevedo	26/11/12 Itacoatiara - AM
A26	CPH	Liane Brito	Adriana Vivan de Souza	14/11/12 Belém - PA
A27	Motoliner	Frans Elbert	Alice Krekt Jos Helmer	29/12/12
B1	AHITAR	Álvaro Alberto Martins Silva – Superintendente Flávia Oliveira dos Santos	Adriana Vivan de Souza Luciana Unis Coentro Clarissa Yebra	02/10/12 Palmas - TO
B2	SEPLAN (BA)	Antônio Alberto Valença	Adriana Vivan de Souza Maurizio Raffaelli Luiza Azevedo	23/11/12 Salvador - BA
B3	SIC (TO)		Adriana Vivan de Souza	26/09/12 São Paulo - SP
C1	AHINOR	Antonio Lobato Valente – Superintendente Otavio Augusto Mendes Nobrega – Analista	Maurizio Raffaelli Luciana Coentro	03/10/12 São Luiz - MA
C2	SPLAN (TO)	Antônio Guerra Wilson Sotero Junior	Luciana Unis Coentro	02/10/12 Palmas - TO
C4	PIPES	Pedro Iran – Proprietário Clidenor Brito Pinto	Adriana Vivan de Souza Clarissa Grabert Neves Yebra	02/10/12 São Luiz - MA
C5	Suzano	Otávio Meneguette	Adriana Vivan de Souza Clarissa Grabert Neves Yebra Pamela Rosa Tancredi	09/08/12 São Paulo - SP
D1	AHSFRA	Luis Felipe de Carvalho Gomes Ferreira – Superintendente	Maurizio Raffaelli Priscilla Paulino	23/11/12 Pirapora – MG

No.	Organization	Representatives	Interviewers	Date and location of interview
D4	ICOFORT	Marcelo Teixeira	Pamela Tancredi Clarissa Yebra	09/11/12 Juazeiro - BA
E1	AHSUL	José Luiz Fay Azambuja - Superintendente Pedro Zimmer	Carlos Riva Clarissa Grabert Neves Yebra Priscilla Paulino	11/09/12 Porto Alegre - RS
E3	Laçador Navegação	Jaime Zille	E-mail - questionário	Porto Alegre - RS
E4	Aliança	Ático Scherer Fernando F. Becker	Clarissa Yebra Carlos Riva	12/09/12 Porto Alegre - RS
E5	FIERGS	Gilmar Caregnatto	Clarissa Yebra Carlos Riva	12/09/12 Porto Alegre - RS
E6	Gomes & Souza	Manoel Hercílio Souza Fernandes	E-mail - questionário	07/11/12 São Paulo - SP
F1	AHIPAR	Antônio Paulo de Barros Leite Samuel Ricardo Van Der Laan	Adriana Vivan de Souza Luiza Chantre de Oliveira Azevedo	27/11/12 Corumbá - MS
F2	IMEA	Daniel Latorraca Ferreira Cleber Noronha	Clarissa Yebra Adriana Vivan de Souza	27/09/12 Cuiabá - MT
F3	Vale	Ângelo Cesar Silva Maranho	Adriana Vivan de Souza Luiza Chantre de Oliveira Azevedo	28/11/12 Corumbá - MS
F5	Naveriver	Denis de Campos Mello	Adriana Vivan de Souza Luiza Chantre de Oliveira Azevedo	28/11/12 Corumbá - MS
F6	SNBP	Sr. Carlos A da Silva	Adriana Vivan de Souza Luiza Chantre de Oliveira Azevedo	28/11/12 Ladário - MS
F7	Aprosoja	Quésia Nascimento Cid Sanches Edeon Vaz Ferreira	Adriana Vivan de Souza Clarissa Grabert Neves Yebra	27/09/12 Cuiabá - MT
F8	Bunge	Junior Justino	Pamela Tancredi Clarissa Yebra	08/11/12 São Paulo - SP
G1	AHRANA	Fabio Castelo Branco	Adriana Vivan de Souza Clarissa Grabert Neves Yebra Pamela Rosa Tancredi Priscilla Paulino Luciana Unis Coentro Luiza Azevedo	13/08/12 São Paulo - SP
G2	Departamento Hidroviário	Marcelo Poci Bandeira	Adriana Vivan de Souza Clarissa Grabert Neves Yebra Daniel Anton	16/08/12 São Paulo - SP

No.	Organization	Representatives	Interviewers	Date and location of interview
G3	Rumo Logística	Daniel Silva Rossi – Gerente de logística	Clarissa Yebra Pamela Tancredi	03/12/12 Sumaré - SP
G4	Torque	Pedro Burin – Diretor executivo Jayr Olindo R. Filho – Diretor	Célio Verotti Clarissa Grabert Neves Yebra Jeroen Klooster	12/07/12 São Paulo - SP
G5	Transpetro	Pedro Henrique F. Steenhagen Gilberto Maciel da Silva Fabiano Tolfo	Adriana Vivan de Souza Alice Krekt Ben Smeenk Clarissa Yebra	24/08/12 Rio de Janeiro -RJ
G6	São Martinho	Wagner de Abreu Masiero – Gerente de logística João Victor Eliseu – Comercial	Alice Krekt Clarissa Yebra Pamela Tancredi	19/10/12 São Paulo - SP
G7	Caramuru	Antônio Ismael Ballan	Clarissa Yebra Pamela Tancredi	13/07/12 Itumbiara - GO
G10	Raizen	João Paulo dos Santos Duarte – Gerente de logística Leandro Alves de Almeida	Clarissa Grabert Neves Yebra Pamela Rosa Tancredi Bastiaan Dekker	19/11/12 São Paulo - SP
G11	SINDPEDRAS (SP)	Osni de Melo – Consultor técnico Bolivar Mercadante Lacerda Jr.	Pamela Tancredi Clarissa Yebra	12/11/12 São Paulo - SP
G12	Fibria	Marcos Barcellos – Gerente de exportação e logística Emerson	Clarissa Yebra Pamela Tancredi	12/11/12 São Paulo - SP
H1	DNIT	Paulo Roberto C. de Godoy Valter Casimiro Silveira	Alice Krekt Adriana Vivan de Souza Priscilla Paulino Jos Helmer Douwe Meijer	29/08/12 Brasília - DF
H2	ANTAQ	Adalberto Tokarski Walneon Antônio Oliveira	Adriana Vivan de Souza Priscilla Paulino Jos Helmer Douwe Meijer	30/08/12 Brasília - DF
H3	SEP	Reynaldo Aben-Athar José Newton Barbosa Gama Fernando Victor C. de Carvalho	Alice Krekt Maurizio Raffaelli Adriana Vivan de Souza Jos Helmer Douwe Meijer	29/08/12 Brasília - DF
H4	SFAT	Gustavo Sampaio de Arrochela Lobo Bruna Denise Lemes de Arruda	Priscilla Paulino Jos Helmer / Douwe Meijer	30/08/12 Brasília - DF
H5	CNT	Rafael Theberge de Viveiros Vinícius Ladeira	Alice Krekt Maurizio Raffaelli	24/10/12 Brasília- DF

No.	Organization	Representatives	Interviewers	Date and location of interview
H11	Concordia Group	Chris Kornet	Jos Helmer Rutger Perdon	20/07/12
H12	ANTAQ	Walneon Antônio Oliveira – Licenciamento e gerente de frete da navegação interior	Priscilla Paulino	30/10/12 Brasília - DF
H13	IBAMA	Gabriel Magnino Veronica Ramos Renata Lima	Priscilla Paulino	30/10/12 Brasília - DF
H14	DNIT	Valter Casemiro – Coordenador geral do porto	Priscilla Paulino	30/10/12 Brasília - DF
H15	Van Oord	Peter van Doorn	Alice Krekt Jan van Overeem	12/10/12 Rotterdam – Holanda
H16	ABIOVE	Daniel Furlan Amaral Rodrigo Koelle Clythio Backx van Buggenhout José Roberto Zamboni	Alice Krekt Adriana Vivan de Souza Clarissa Yebra	1/02/13 São Paulo - SP
H17	SEGES	Luziel Souza Alexandre Rafael	Luciana Unis Coentro Adriana Vivan de Souza Clarissa Yebra	11/04/13 São Paulo - SP
H18	Confederação da Agricultura e Pecuária do Brasil – CNA	Luiz Antônio Fayet – Consultor de Logística	Adriana Vivan de Souza Clarissa Yebra	12/04/13 São Paulo - SP
H19	ANA	Vicente Andreu Guillo – Diretor Presidente	Luciana Unis Coentro Adriana Vivan de Souza Clarissa Yebra Maurizio Raffaelli	19/04/13 São Paulo - SP
H20	ANEEL	Bruno Elmo Vinicius	Luciana Unis Coentro Clarissa Yebra	25/04/13 Brasília - DF
H21	EPL	Fernando Reis Antonio Castanheira	Luciana Unis Coentro Clarissa Yebra	25/04/13 Brasília - DF
-	Secretaria de Política Nacional de Transportes-SPNT	Eimair Bottega Ebeling Juliana Pires Penna e Naves Rone Evaldo Barbosa Luiz Carlos Rodrigues Ribeiro	Alice Krekt Luciana Unis Coentro Clarissa Yebra Adriana Vivan de Souza Maurizio Raffaelli	-

APPENDIX 2 - QUESTIONNAIRE

1. Which rivers/ trenches are navigable? What are the main routes?
2. What is the organizations experience with river transport? Has the organization already used the river for transportation or are they using it at the moment?
3. What is the movement of cargo / passengers?
    a. Which types of cargo are transported?
    b. What are they main purposes of passenger travel? (work, personal affairs, tourism)?
4. What are the cargo logistics? What are the considered criteria in choosing the transportation mode?
5. Are changes are foreseen in the handling of cargo / passengers over the next 20 years?
6. Are there any problems expected with the intensification of river transport?
7. How is the competitiveness of river transportation compared with other modes available in the region? What are the advantages identified in this mode of transport?
8. What are the costs of different modes of transportation?
9. What are the current restrictions on the use of river transport, with respect to:
    a. Existing infrastructure (bridges, locks, terminals)
    b. Natural conditions of the river (depth, rapids, etc.)?
    c. Regulations and institutions?
10. Within your area of operation, which river stretches would be suitable to become waterways?
11. Data are available for monitoring rivers (variation of water depth, river siltation, bank erosion, etc.)
12. What are the predictions for regional development (changes in usage patterns and land use, population growth, infrastructure improvements, etc.)?
13. Were Studies conducted on trends in the change of rainfall and river system?
14. What interventions should be considered to enable navigation of larger vessels?
15. Were difficulties encountered in the process of licensing the supporting infrastructure necessary for navigation? What were they? What could be done differently?
16. What were the conditions specified in the license? What actions have already been implemented?

17. Are there studies on traditional communities living near rivers?

18. Does the organization develop environmental programs in the region? If yes, which?

19. What are the uses that negatively impact on river transport (tourism, energy generation, water supply, expansion of urban areas, etc.)? Are these conflicting interest managed in a balanced way?

20. What are the main institutional partners involved in the planning, implementation and operation of waterways?

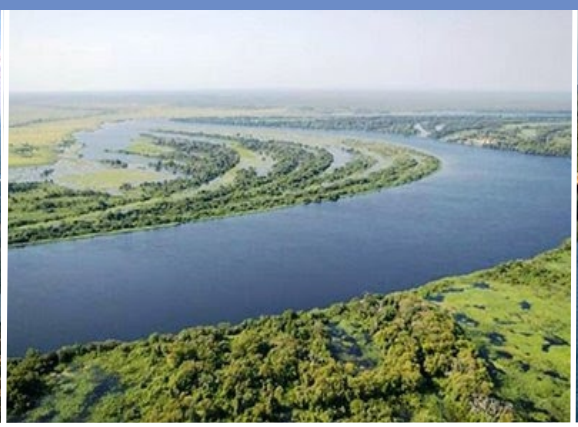
21. Was this waterway already in operation when his company came to the area?

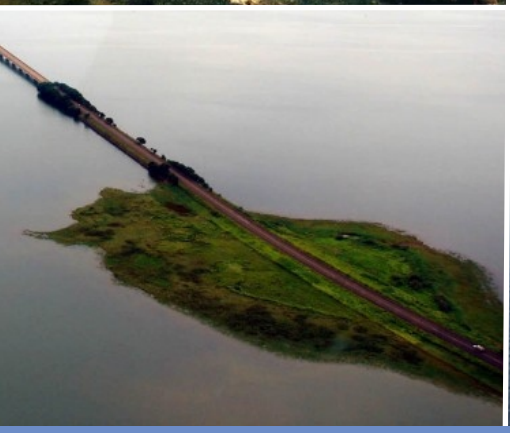
    a. If not, which institutions were consulted / involved? What were the main difficulties encountered in this process? What were the main institutional partners to enable navigation in the waterway?

    b. If yes, to start operating the waterway, which organs had to be consulted?

22. What types of funding are available for projects implementation, maintenance and improvement of waterways? What is the role of the private sector (private co-financing)?

Ministério dos Transportes



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