BEST PRACTICES GUIDE FOR PORT SUSTAINABILITY:

AN ESG STRATEGY

ABEPH

EDUFMA

ATP
Associação de Terminais Portuários Privados

Organizador

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Best Practices Guide for Port Sustainability:

An ESG Strategy

São Luís - Maranhão, Brazil

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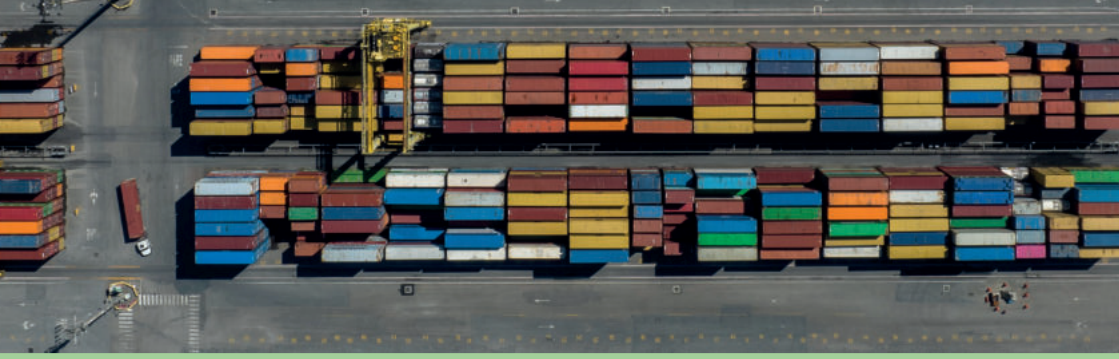

Sumário

• Preface •

Murillo Barbosa
CEO of ATP

Port Terminals are not just a connection or transferring point between land and water. A port is a multidimensional system that directly connects cargos, ships and cities, and both influences and is influenced by the environment within which it operates. Port development must meet the demands of the present without affecting the ability of future generations to also meet their needs. Currently, sustainable port development goes beyond concerns for the future. It is a strategic form of business, not only because of player demands, but also because it is a fundamental variable in the equation of port survival and efficiency.

Since its creation, the Association of Private Port Terminals (ATP), has worked to promote sustainable development, and maintains socio-environmental responsibility as one of its core values. In 2021, the ATP, via a Sustainability Committee, created an internal database with information related to the environmental, social, and governance actions of its associates. The database was a starting point in the creation of a Good Practices Guide for the Sector, which has been a long-standing wish of the Association's Executive Board, and which would not have come to fruition if it had not been

for the support of the Federal University of Maranhão (UFMA), in particular Professor Sérgio Cutrim, and of the Brazilian Association of Port and Waterway Entities (ABEPH).

The Best Practices Guide for Port Sector Sustainability reinforces the commitment of ATP and its associates to the development of new quality and performance standards, to guarantee port development with sustainability, and to invest in measures that aim to apply practices to ports sustainability.

This publication fills a gap in the port sector, and serves as a benchmarking with respect to the best practices that can be adopted by private and public port terminals. It also presents solutions to current issues, brings innovative ideas, and encourages integrated environmental planning with development processes for port activities.

Private Use Terminals (TUP) play a key role in this context, and can even take the lead in various actions, programs, and projects related to the sustainable development of the port sector.

Luiz Fernando da Silva
President of ABEPH

The Brazilian port sector has evolved exponentially in recent years. This is evident the operational and financial results, since various cargo handling records have been set by ports across the country. However, more than a transformation in the business sector, the true changes have been in the care taken by port authorities, companies, and operators focusing on environmental, social, and corporate governance (ESG) themes.

The Brazilian Association of Port and Waterway Entities (ABEPH), according to the vision of each of its constituent members, believes that the best way for public ports to fulfill their social role is by strengthening ESG and sustainability principles, which effectively contribute to local development, job creation, and environmental protection.

This Best Practices Guide for Port Sustainability brings together the efforts made in this regard, presenting solutions, ideas, and encouraging responsible planning. We know that promoting integrated economic, social, and environmental development is not an easy task, but this publication shows us that it is possible.

In this sense, the ABEPH promotes research, content creation, and debates. The association understands that cooperation is a fundamental axis for building a stronger sector.

We believe that sharing ideas and experiences, as this Guide does, increases our oppor-

tunities for growth. In a highly competitive environment, our union and joint efforts allow us to innovate, learn, and improve.

Brazilian public ports have a clear commitment to socioeconomic development and to improving the quality of life of society as a whole, while also respecting human rights and the environment.

The search for balance between port activities and the pillars of sustainability will remain challenging, but the coming together of the sector will be crucial in promoting discussions on common problems, and in finding joint solutions.

Prof. Doctor Sérgio Cutrim
Doctor of Engineering Naval and Oceanic
-
Professor at Federal University of Maranhão

Why Sustainability and ESG? There are several factors. First, several scientific studies have proven that more sustainable organizations are more profitable. Second, public organizations have been increasing regulations and inspections surrounding this subject. Third, sustainable organizations tend to have better risk management and be more resilient to supply chain ruptures. Fourth, society is increasingly demanding sustainable positioning from organizations. Fifth, sustainable organizations attract and retain the best talent. Finally, we are in a climate emergency. To conclude and summarize, one can see that sustainability can be a source for creating a competitive advantage.

Sustainability contributes to and is affected by paradigm shifts. Two major references of these new paradigms are Stakeholder Capitalism – A Global Economy that works for Progress, People and Planet by Klaus Schwab (2021) and the World Economic Forum, and Creating Shared Value, by Michael Porter and Mark Kramer (2011).

Previously, sustainability was seen as a cost generator, but this is no longer true today. It must be part of an organization's strategy, and it can even leverage new businesses, while contributing environmental and socially. Furthermore, the modern vision of sustainability is linked to innovation, in a used neologism Innovability.

This evolution has already been noticed by the port sector, in the financial markets,

and in several other industries that have already adopted sustainability and ESG models. All the major stock exchanges in the world have created, or are creating, norms and resolutions for sustainable conduct, focused on risk management, resilience, and coping with climate change, in addition to standardizing models for publishing sustainability reports.

In this context, the Best Practices Guide for Port Sustainability, an ESG strategy, fills a gap in the literature referring on port sustainability, and in Brazil, it is the first port sustainability guide to include an ESG strategy and management model as a way of structuring and guiding best practices. It is divided into two main segments. First, it offers a "picture" of the sector with the 6 Ps of the best sustainability practices, Policies, Plans, Programs, Projects, Processes, and Partnerships, and we also map stakeholders, Material Themes, and Sustainable Development Goals (SDGs).

The second segment of information in the Guide talks about the Port Sustainability Journey. It is subdivided into six journeys, the Starting Point, Environmental, Social, Governance, Communication, and Leadership. We want to present this Guide to all organizations in the port ecosystem, whether they are taking steps towards starting a sustainability journey, or advancing towards maturity. This part of the Guide concludes with a presentation of a sustainability maturity diagnosis model.

I would like to thank Murillo Barbosa and Mayhara Chaves for their trust, along with the ATP and the ABEPH for their collaboration in this project. Finally, it would not have been possible to carry out this publication without the help of the entire technical team.

One of our main objectives is to inspire port leaders, contribute to the development and application of sustainability, and promote a sustainable culture.

Enjoy the reading!

• Institutions •

The Association of Private Port Terminals (ATP) represents the interests and acts in defense of the private port segment and in the modernization of Brazilian ports. Currently, it represents 31 large companies and brings together 61 Private Use Terminals (TUPs) in the country.

ATP members, together, handle more than 60% of Brazilian port cargo and are responsible for generating 47,000 direct and indirect jobs. These are companies that operate in fundamental areas of the Brazilian economy, i.e., mining, steel, oil and gas, agribusiness, container shipping, and logistics complexes, contributing to a positive national trade balance, and making Brazilian foreign trade more robust.

The ATP is focused on maintaining constant articulation with the government, the public, and with private entities, to ensure legal certainty and a favorable business environment for investment. It also promotes the active participation of the business community in technical and legal discussions to contribute to the growth of Private

Use Terminals in Brazil.

The Association operates on more than 20 work fronts, has four Thematic Committees, and strongly contributes to the elaboration of sectoral public policies in defense of port interests. Thus, it develops projects and studies to encourage sustainable policies and public and private investments to improve and modernize the Brazilian port infrastructure.

Since 2018, the Sustainability Committee – Sustain, and ATP associate representatives from the environmental and sustainability areas have exchanged experiences and discussed actions to promote different agendas on the subject. The idea for this Guide was born within this group. It presents good practices for private terminals, which are references for innovation and sustainable practices.

ATP.
The Competitiveness of Brazil passes through here!

portosprivados.org.br

The Brazilian Association of Port and Waterway Entities (ABEPH) defends and coordinates the interests of the Brazilian Public Ports, an essential element of the logistics infrastructure.

Throughout its more than sixty-year history, ABEPH has promoted the exchange of information among its association members, focusing on technical, economic, and legal aspects of the area, through numerous surveys, and by training hundreds of professionals every year.

It also seeks solutions for Brazilian port issues via its studies and debates, directly articulating institutions and autarchies in the defense of port interests.

All this has contributed to the improvement of construction, operation, governance, and managing methods for port facilities and services in Brazil, and also contributed to greater logistical, environmental, and social efficiency in the sector.

Currently, ABEPH represents 17 port authorities, which manage 29 ports in 14 Brazilian states, which together, move more than 400 million tons of cargo per year,

corresponding to 35% of all Brazilian port cargo.

Get to know ABEPH, learn more about the ports managed by its associates, and find out how port activities contribute to logistical efficiency and development in Brazil at

abeph.com.br

The Federal University of Maranhão (UFMA) was formerly known as the Faculty of Philosophy of São Luís do Maranhão, founded in 1953. With more than seven decades in existence, UFMA has contributed significantly to the development of the state of Maranhão, training professionals in different areas of knowledge at both the undergraduate and graduate level, undertaking research aimed at the main problems of the state and in the region, developing extension activities on social organization, production, and technological innovations, and training human resources, while always appreciating culture. UFMA's mission is to generate and disseminate knowledge through teaching, research, and extension programs that contribute to economic, social, cultural, and environmental development.

Currently, UFMA has more than 28,000 enrolled students, 29 at-distance education centers, more than 3,000 students enrolled in postgraduate courses, more than 1,800 professors, 1,600 administrative technicians, and 64 academic and professional Master's and Doctoral courses.

ufma.br

The LabPortos laboratory was founded in 2011 at UFMA, certified by CNPQ, and operates in the 3 axes of the university, i.e., teaching, research, and extension. It is an interdisciplinary group dedicated to the port sector, that works in the following areas: planning and governance; sustainability and ESG; maritime economy; innovation; and productivity and port-city relationships. LabPortos has already carried out important projects like postgraduate courses in Port Engineering, Quality Engineering, Health, Safety and Environment Engineering, Port Logistics and Port Management, and created the Port Observatory and the International Port Management Symposium, while also publishing the Port ESG Manifest Book. LabPortos' mission is to connect the port sector with academia.

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• The presentation •

Best Practices Guide for Port Sustainability: an ESG Strategy serves as a compass for understanding and practicing sustainability in the port sector. It was conceived from surveys and analyses of dedicated literature, analyses of good practices in environmental, social, and governance (ESG), and publicly available data collected directly from port organizations. The conceptual bases meet the concept of sustainability in its economic, environmental, and social dimensions, and its extension to Environmental, Social, and Governance (ESG) strategies.

It is the result of the collective efforts of academia, scientific research carried out within the scope of the LabPortos Research Group, the Association of Private Port Terminals (ATP), and the Brazilian Association of Port and Waterway Entities (ABEPH).

Assembled collaboratively, the Best Practices Guide for Port Sustainability: an ESG Strategy, seeks to contribute to the development and implementation of Sustainability agendas, delivering value and benefits from the port sector to its stakeholders at the local, regional, and national levels. The goal is to technically contribute to proposing, implementing, and communicating concrete actions, including compliance with public policies issued by Federal Regulatory Agencies, and inspections and planning for the port sector.

Who is this Guide for? It's not just for public ports or private terminals. We have developed this Guide for the entire port system, including public ports, private terminals, tenants, operators, shipowners, shipping agencies, carriers, academia, and other organizations in the port ecosystem.

It is a digital and public guide, since we are interested in disseminating the concepts, strategies, the best sustainability practices, and the ESG model, as much as possible. Our mission is to contribute to the sustainable development of the port ecosystem.

It is also for Stakeholders, and is guided by the best national and international practices in elaborating reference guides for specific industries.

We should emphasize that we did not identify the organizations nor the complex records responsible for the actions and strategies addressed here. The Guide is not aimed at promoting individual groups, but rather at promoting sustainability and the ESG strategy for the entire Brazilian port ecosystem.

The methodology comprised a bibliographic review, regulatory analyses, content analysis, digital analysis, interviews, questionnaires, technical visits and benchmarking. The Guide consists of this presentation, a brief conceptualization and analysis of the concept of sustainability in the direction of ESG strategies, the typology of best practices in the environmental, social, and governance dimensions of Policies, Plans, Programs, Projects, Processes, and Partnerships. Likewise, the Guide identifies the relevant public, i.e., the stakeholders for whom the ESG strategies are developed in their material themes, under the prism of the Sustainable Development Goals (SDGs), as proposed by the UN in the 2030 Agenda, and unrestricted compliance with legislation and considerations of voluntary certification requirements available in the market. It also advances the mapping of the main national regulations on environmental, social, and governance issues with a focus on port-city relations.

The Guide concludes with a proposal for a journey towards port sustainability, comprising actions for the internal audience (managers and employees) and the external audience, i.e., suppliers, customers, regulatory entities, shareholders, all to guide and seek out harmonious and sustainable relationships between the ports and their cities.

This Guide did not intend to be definitive, nor are the conditions and strategies for managing and optimizing conditioned specifically to the environmental, social, and governance aspects of port organizations. Each strategy, best practice, and planning for building a sustainable journey, must be adapted to each organization characteristics, and to

the expectations of its stakeholders. We believe that it should contribute to the sustainability of human activities, natural life conditions on the planet, and the improvement of our quality of life, with fair conditions and equal opportunities for all, in addition to contributing to business strategies and the resilience of the port system.

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This Best Practices Guide for Port Sustainability: an ESG Strategy, for all means, resulted of a collaborative effort! Without the open and enthusiastic cooperation between of all the people and institutions participating in the project, its execution would be impossible.

Besides the collective work carried out by the technical team responsible for building this Guide, the joint efforts with the Association of Private Port Terminals (ATP) and the Brazilian Association of Port and Waterway Entities (ABEPH) employees, as well as, the institutional support of the National Transport Confederation (CNT) were essential to the final result.

Public ports and private port terminals opened their doors to receive researchers, provided information and shared their expertise and best practices regarding the development of sustainability actions on their port ecosystem.

We would like to thank, specially, the members of the ATP Port Sustainability Committee, Sustentar, in addition of the ABEPH Sustainability Committee, called Environment Technical Chamber, who dedicated two great assets, their time and knowledge, in order to help the Guide preparation, as well, for reviewing the early versions of the document.

We would also like to thank Mayhara Chaves and Gilmara Temóteo, who started this project while they were president of ABEPH. They provided all the support and resources needed to carry out successfully this Guide.

1

SUSTAINABILITY AND THE ESG STRATEGY

We are currently experiencing a period in which sustainability values are evolving into ESG (Environmental, Social, and Governance) strategies, which guide organizational planning, daily operations, and the evaluation of effective results in their economic, environmental, and social dimensions. This guide focuses on this evolution as it pertains to Brazilian ports.

The capitalist system is characterized by cycles of expansion and contraction, economic crises, the extinction and emergence of economic sectors, and the redistribution of activities between regions and countries. However, this innovative and disruptive process has the unfortunate downside of concentrating wealth, with poverty persisting for many across significant parts of our planet.

On a positive note, there have been significant advances in technology, knowledge, and health indices that have greatly improved the quality of life and longevity of people. It is also worth mentioning the relatively harmonious coexistence of capitalist and democratic systems, with the notable exception of what occurred in Europe during the first half of the last century.

The Industrial Revolution, which began in the second half of the 18th century, radically changed people's lives by promoting urbanization, along with the use of machines and steam vehicles, which increased productivity, and revolutionized forms of transportation and navigation. This resulted in the encouragement of the exchange of products between countries.

The rapid advancement and adoption of new production technologies, as well as the excessive exploitation of natural resources, were evident. In practice, anthropocentrism assumes that nature exists to serve man's well-being and wealth and is inexhaustible. However, this assumption is clearly mistaken and has resulted in the desertification of regions and the extinction of terrestrial and marine species due to predatory practices.

The current situation requires immediate action, as the extinction of our species is a real threat, and is not just a matter of disrespecting the "rights of future generations." Environmental care and actions often result in higher costs and longer times, whereas depredation is "cheaper" and faster.

What is necessary is a focus on sustainability practices as the foundation for improving conditions and the quality of life for all on this planet. Therefore, it is essential to recognize that innovation and sustainability are interrelated. Innovation that is detrimental to sustainability is not true innovation, but rather a retrocession. Innovation that is neutral to sustainability merely represents a new way of doing the same thing. True innovation only deserves the name when it considers and contributes to sustainability in all three dimensions: economic, environmental, and social.

Robles and La Fuente (2019) propose a threefold approach to environmental management in organizations:

1) Compliance with government and private regulations (certifications);

2) Meeting the demands of the consumer/buyer market, while preserving the image and reputation of the organizations;

3) Embracing a philosophy of social and environmental responsibility that includes respect for the environment.

In short, organizations adopt sustainability strategies based on three drivers: compulsory, mixed, and voluntary. Compulsory drivers are driven by suitability and compliance with legal requirements, mixed drivers are driven by a combination of voluntary and compulsory adherence to certifications based on market requirements, and voluntary drivers are driven by environmental and social awareness.

The theme of sustainability has been supported and disseminated by several reports and initiatives, including the 1987 Brundtland Report, the 2015 UN Sustainable Development Goals (SDGs), and the 2030

Agenda. The Brundtland Report, also known as "Our Common Future," introduced the concept of Sustainable Development or Sustainability as follows:

> ***"A process of change in which the exploitation of resources, the direction of investments, the guidance of technological development and institutional change are all in harmony and enhance current and future potential to meet the needs of the present without compromising the ability of future generations to meet their own needs."***
> (UN, 1987, authors adaptation)

The concept of sustainability and its three dimensions, economic, environmental, and social, have been internationally accepted and applied in government policies. This is evident in Article 225 of the Brazilian Constitution of 1988, which states that: "everyone has the right to an ecologically balanced environment, which is a common asset for the people and essential to a healthy quality of life. It imposes the duty of defense and preservation on public authorities and the community, for present and future generations." (Authors translation, BRASIL, 1988).

Brazil is considered to have one of the most comprehensive and well-designed environmental legal frameworks, but unfortunately, it is hindered by vulnerable controls and weak inspection structures that lack sufficient human and material resources. Some notable Brazilian laws on the environment include:

1. Law 7,804/1989 – Provides for the National Environmental Policy – PNMA ;
2. Law 9,433/1997 – Establishes the National Water Resources Policy – PNRH ;
3. Law 9,605/1998 – Environmental Crimes Law;
4. Law 11,445/2007 – Establishes the National Basic Sanitation Policy (PNSB);
5. Law 12,305/2010 – Establishes the National Solid Waste Policy (PNRS).

The objective of the PNMA (Law 7,804/89) is to preserve, enhance, and restore environmental quality suitable for life, with the aim of guaranteeing the conditions for socio-economic development, national security interests, and the protection of human dignity in Brazil (BRASIL, 1989). One of its tools is Environmental Licensing, an administrative process in which a competent body grants licenses for the location,

installation, expansion, and operation of enterprises and the use of natural resources that pose a risk of causing pollution (BRASIL, 1997).

When implementing projects, the goal is to "harmonize socio-economic development with an ecologically balanced environment."

The port activities are classified as environmentally impactful activities, and licensing is based on the analysis of Environmental Impact Study (EIA) and Environmental Impact Report (RIMA) reports.
The EIA comprises the Environmental Diagnosis, an analysis of the environmental impacts of the project and its alternatives, a definition of the measures to be taken for mitigating negative impacts, and a follow-up and monitoring program (BRASIL, 1986).

The RIMA document provides more comprehensive understanding and transparency regarding an enterprise's characteristics, environmental impacts generated, and actions to mitigate impacts (BRASIL, 1986).

• Adherence to certifications and market requirements

Paraphrasing the popular saying, "Caesar's wife must not only be honest, but also appears to be honest.", in the case of environmental management in organizations, it is not enough to merely be adequate; one must also demonstrate adequacy. To achieve this, there are several national and international companies that certify or regulate practices and disclose environmental actions, including:

ISO 14001 is an international standard that refers to the International Organization for Standardization (ISO), comprising 28 standards distributed across six areas:

> 1) Environmental Management Systems;
> 2) Environmental Audits;
> 3) Environmental Performance Assessments;
> 4) Environmental Labeling;
> 5) Environmental Aspects in Product Standards
> 6) Product Life Cycle Analyses
>
> (FIESP, 2015).

On the other hand, ISO 26000, published in Brazil in 2010, provides non-certifiable guidance focused on sustainable development actions and the adoption of practices that consider social, environmental, economic, legal, cultural, political, and organizational diversities, maintaining consistency with international standards of behavior (FIESP, 2013).

The Global Reporting Initiative (GRI) report is an instrument for transparency and demonstrating the interrelation between an organization and its stakeholders in sustainability management. It includes conduct guides and indicators related to environmental, social, economic, and governance issues, with the objective of presenting reliable, relevant, and standardized information that identifies opportunities and risks in decision-making processes (GRI, 2022).

In the financial sector, there are indicators proposed to primarily attract investments and applications directed toward sustainable enterprises, demonstrating the adoption of sustainable practices in organizations. For instance, B3's Corporate Sustainability Index (ISE) evaluates companies across seven dimensions: general, governance, environmental, economic-financial, climate change, product, and social nature. (ISEB3, 2019).

Also, in Brazil, there is the B Lab, an initiative established in 2006, which certifies organizations as B Corporations after evaluating their performance in social, environmental, and transparency issues. The concept is based on the idea that there is only one planet, i.e., no "Planet B", and the intention is to change patterns of behavior, culture, and structural tools of capitalism to achieve a balance between the pursuit of profit and the purpose of organizations towards social equity and awareness of the interrelationships between human beings and entities. (SYSTEM B, 2022).

The Global Compact is a 2000 UN initiative and established in Brazil in 2003. It represents voluntary principles of conduct toward sustainable development and the promotion of citizenship. Currently, more than 1,500 companies in Brazil have joined Action Programs, which focus

on Water, Sustainable Agriculture, Human Rights, Climate, Actions against Corruption, the SDGs (Sustainable Development Goals), and Communication and Engagement (Global Compact, 2022).

As can be seen, there are a large number of certifications, including sector-specific environmental certifications, such as those related to civil construction. In Brazil, these include, among others, Leadership in Energy and Environmental Design (LEED), Acqua-HBE, GBC Zero Energy, Procel PBE Edifica, and Caixa's Casa Azul Seal. In addition to the traditional ISO certifications, there are also specific certifications for the port sector, such as ECOPORTS and GREEN MARINE

• Where did we come from, where are we, and where are we going?

These basic existential questions can be applied to sustainability initiatives and urgent actions. The evolution of the Bruntland Report, the 2030 Agenda, and the UN Sustainable Development Goals rely on academic and organizational initiatives. These initiatives include concepts like the Triple Bottom Line (3BL), Ecological Footprint, Circular Economy, and more recently, Environmental, Social, and Corporate Governance (ESG) strategies.

The concept of the Triple Bottom Line (TBL or 3BL) is an analogy to the last line of results in financial statements, and explains the tripod of sustainability in the economic, environmental, and social dimensions. These three dimensions should be managed in an integrated and balanced way, between the three "results": People, Profit, and Planet. The premise is that business results go beyond economic and financial performance, and should also benefit the economy, the environment, society, and communities. TBL aims for a socially fair, ecologically sound, and economically feasible environment, fulfilling the concept of sustainability (ELKINGTON, 2004).

A similar approach is the Ecological Footprint, which was proposed by the World Wide Fund for Nature (WWF), an international non-governmental organization dedicated to conservation, research, and environmental recovery. This approach focuses on the concept of biocapacity,

which refers to "the ability of ecosystems to produce useful resources and absorb waste generated by human beings" (ECOLOGICAL FOOTPRINT, 2022).

The concept of the Circular Economy, which originated in the United Kingdom in 2010 by the Ellen MacArthur Foundation (EMF), is also important. It rethinks the management and reuse of natural resources in the transition from a linear economy to a circular economy. In other words, it addresses processes, including their linear cycle of Production => Use => Recovery => Recycling. To this end, it considers products from their conception, including the choice of materials and forms of production and packaging, and their reuse, as the basis of economic systems. It shifts the traditional view of products from "Cradle to Grave" to the concept of "Cradle to Cradle," which is inspired by nature. (ELLEN MACARTHUR FOUNDATION, 2022).

We would like to highlight ESG strategies, which extend the SDGs of the 2030 Agenda, and are adopted by organizations in conjunction with regulated metrics and disclosures (ESG, 2022). To summarize, ESG strategies are based on Corporate Social Responsibility, which considers the consequences of organizational actions on society and helps to inform and qualify decisions by incorporating the concepts of sustainability and the SDGs into organizational strategies. The Global Compact and the World Bank presented the ESG strategy in 2004 in the report "Who Cares Wins" (WORLD BANK, 2004). How do organizations implement ESG strategies?

The environmental impacts of products and services should consider their overall life cycle and sustainability, the efficient use and protection of natural resources, and the prevention and control of pollution and emissions, including greenhouse gas emissions and their climate effects. Social responsibility involves ensuring employee working conditions, such as health and safety, and developing human capital through training, capacity building, and education; promoting labor rights, non-discrimination, and equal opportunities; upholding human rights, community involvement, and philanthropy; and ensuring the responsibility of suppliers and customers for product quality and safety. Corporate governance includes ensuring ethical business conduct and governance structures, shareholders' rights, the boards' structure

and its compensation, preventing controversial practices such as bribery and corruption, and ensuring auditing, disclosure, and transparency in reports (VEENSTRA & ELLEMAERS, 2020).

A necessary condition, sine qua non, is that those in charge of organizations accept outcomes beyond financial profit and consider the purposes of social responsibility. The challenges are the disclosure of ESG practices and the adoption of metrics and procedures by entities that certify organizational performance in the dimensions of sustainability. While environmental and social metrics exist, in relation to governance, the difficulties range from determining which stakeholders to engage with, to demonstrating good practices and auditing them.

When disseminating ESG strategies, it is important to be cautious about greenwashing, which refers to the misleading communication of sustainability actions or results. Organizations should uphold sustainable practices and communicate with transparency to maintain their reputation and gain recognition, which is difficult to obtain and very easy to lose.

While sustainability and its three dimensions are already present in many organizations and government policies to some extent, the process is not straightforward and requires constant dedication and commitment, with ups and downs and advances and setbacks. This guide aims to contribute to this effort[1].

[1] This text is based on the work: ROBLES, L. T. The paths to sustainability and the ESG strategy. In: CUTRIM, Sérgio Sampaio; ROBLES, Leo Tadeu (org.). Manifest : port ESG. Saint Louis: Ed. from UFMA, 2022. E-book. P. 16-32.

2

WHAT'S NEW IN ESG

ESG is considered a natural evolution of the framework created by John Elkington in 1997, known as the Triple Bottom Line (3BL), which he introduced in his famous book, "Cannibals with Forks." One of the dimensions of the 3BL is the economic factor, which is not explicitly represented in the ESG acronym. However, this does not mean that it is not relevant or important, as it is considered an essential and cross-cutting feature of any environmental or social project.

The significant improvement that ESG brings is in the area of Governance. Therefore, it is necessary to reflect on its concepts and implications.

According to the Organization for Economic Cooperation and Development (OECD), corporate governance involves a set of relationships between a company's management, its board of directors, shareholders, and other relevant stakeholders. Corporate governance allows organizations to create a structure through which they can establish their objectives, determine the means to achieve them, and control and monitor their performance. (OECD, 1999).

The Brazilian Institute of Corporate Governance (IBGC) defines corporate governance as the system of directing, monitoring, and incentivizing organizations, which involves relationships between partners, the board of directors, supervisory and control bodies, and stakeholders. The principles of Corporate Governance, according to IBGC (2022), are as follows:

1. **Transparency**
2. **Equity**
3. **Accountability**
4. **Corporate Responsibility**

Brooks and Cullinane define governance in the port sector as a system that involves structures and processes that bring together groups of individuals and institutions towards a common purpose, along with rules, regulations, port policies, and regulatory frameworks, encompassing both the public and private sectors (Brooks, Cullinane, & Pallis, 2007).

Governance in large part is related to concepts and practices of integrity, compliance, risk management, and accountability. These practices are especially relevant in companies with shares traded on stock exchanges and in public sector organizations. However, within the scope of ESG, governance encompasses more than just these practices.

We define this advancement of governance as:

> ***[...] New Governance: a management and relationship model by which an organization is managed, involving all its stakeholders, internal and external, in the strategic planning process and definition of the social purpose, with the adoption of the principles of sustainability, innovation, corporate activism, diversity, equity, inclusion, co-creation and transparency. Aligning financial maximization with the environmental and social legacy.***
> (CUTRIM, 2022, p. 71).

New Governance is embedded in the context of stakeholder capitalism. The objective of solely making a profit for organizations is no longer sufficient for success and longevity. Every organization, whether public or private, must have a declared social purpose and seek a social license, which can be summarized as a positive impact on society beyond the traditional payments of taxes, salaries, and investments.

This New Governance can drive a new sustainable and timeless organizational culture that contributes to the port-city relationship. It can be stratified into micro-governance and macro-governance.

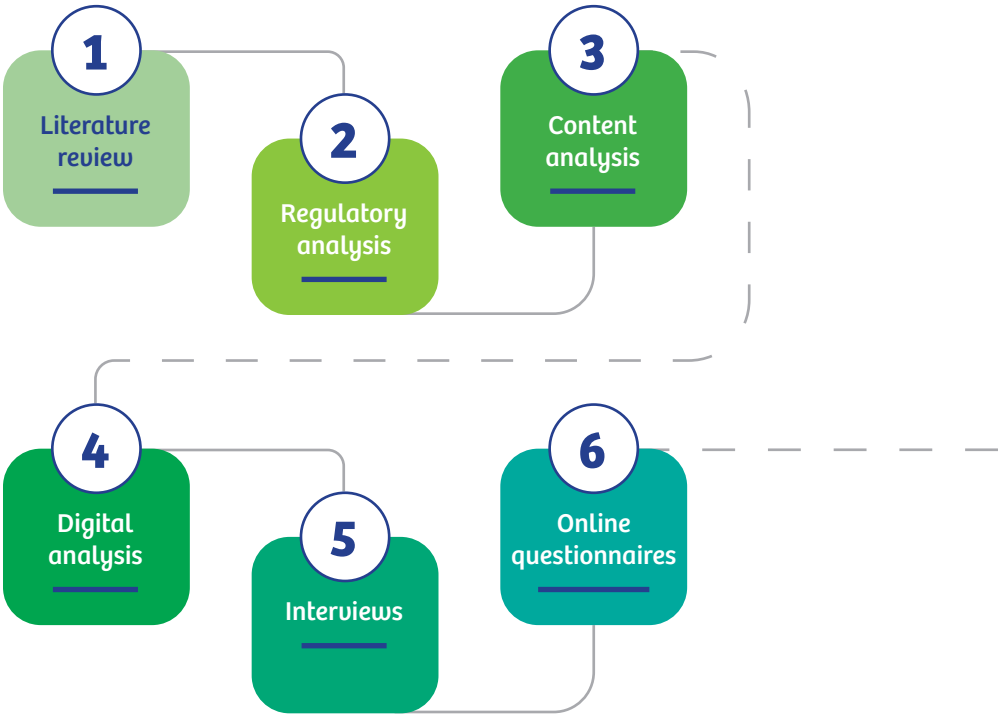
Micro-governance pertains to the organization's management model, the set of processes, structures, the form of organization, indicators, remuneration systems linked to sustainable principles attainment, rules of control and incentives, and relationships among shareholders.

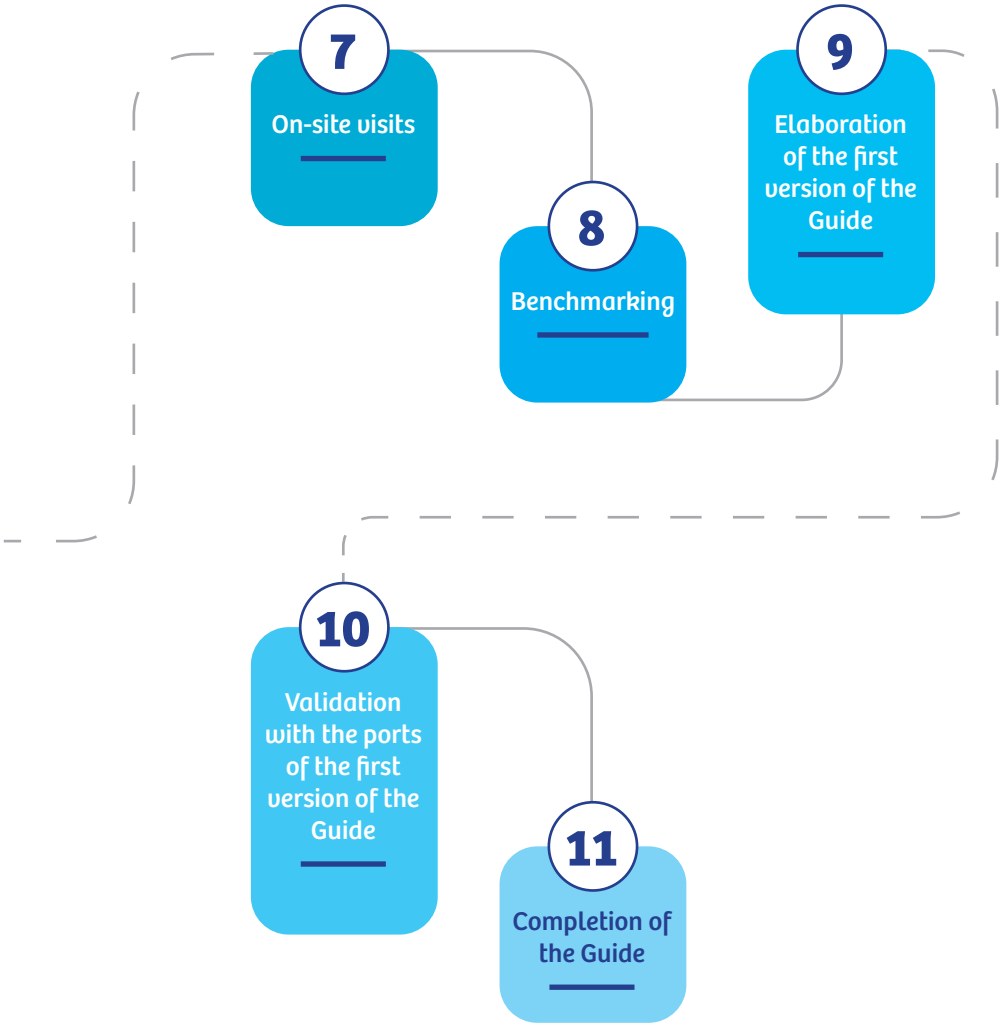
The concept of macro-governance is related to the relationship model between the organization and its stakeholders, the definition of a sustainability policy, the creation of institutional policies, such as research and development and innovation policy, the creation of a materiality matrix, and the inclusion of the principle of co-creation with stakeholders. It also encompasses the development of a transparency program and best disclosure practices, such as the Global Reporting Initiative (GRI) sustainability reporting model, and should extend to the entire supply and production chain.

3

METHODOLOGY

This chapter presents the methodology for creating the ESG Guide. The methodology was built considering the best practices of academia and specialized technical work in the preparation of guides and reference manuals. The methodology comprises 11 distinct phases, which are not necessarily sequential, as follows:




7
On-site visits
8
Benchmarking
9
Elaboration of the first version of the Guide
10
Validation with the ports of the first version of the Guide
11
Completion of the Guide

Literature review

The literature review was conducted using major national and international research databases such as Scielo, Scopus, Web of Science, and Capes. The survey revealed a gap in academic publications dedicated to creating and proposing sustainability guides for specific economic sectors. The publications researched were limited to case and multi-case studies, systematic literature reviews, analysis of sustainability report results, and sustainability indexes.

This research phase established the theoretical basis and rationale for sustainability, analyzed the evolution of sustainability, the origins of the ESG model, and the best sustainable practices in organizations. Additionally, it identified the evolution of sustainable development principles, the Triple Bottom Line (TBL) approach to the Environmental, Social, and Governance (ESG) model and strategy. This stage was conducted between June and August 2022.

Regulatory Analysis

The analysis of regulations was conducted through a survey of federal legislation such as laws, ordinances, regulations, and policies that focused on sustainable management principles within the environmental, social, and governance dimensions. In this way, legal obligations related to sustainability issues were identified, as well as actions, projects, and voluntary programs concerning ESG. This stage was conducted between August and October 2022.

Content analysis

The technique of content analysis, as defined by Bardin (2011), is a qualitative analysis method used for speeches and communications, particularly in public documents, to extract understandings, classifications, and inferences. The method comprises four phases: pre-analysis, exploration of the material, the treatment of results, and interpretation. This involves coding, by identifying recording units, enumerating them, and categorizing them. This application allowed the creation of a typology of best sustainability practices presented in Chapter 7 and

their detailed analysis in the environmental dimension (Chapter 8), social dimension (Chapter 9), and governance dimension (Chapter 10).

This Guide uses the following types of public documents as sources for documental research: sustainability reports, integrated reports, administration reports, management reports, environmental agendas, sustainability policies, master plans, and development and zoning plans. These documents are available on the websites of public ports, private port terminals, and federal regulatory agencies, inspectors, and planners of the national port system. The documents are not cited individually throughout the text but are listed in the final section of references.

We decided to include all documents used in constructing the Guide in the references section, even those that were not cited individually, but served to study, understand, and analyze the theme. The objective was to contribute to a curation of quality and current sources of information on this constantly evolving subject.

In the content analysis, the Sustainability Reports and Integrated Reports were the main sources of information among all cited sources. The analysis was stratified according to groups of public ports and private terminals. The largest number of reports came from private port terminals, which may be associated with their participation in conglomerates with shares traded on stock exchanges, where the rules of the Securities and Exchange Commission require and oversee the publication of these reports. This phase was conducted between August and November 2022.

Digital Analysis

The technique we refer to as digital analysis also involves the use of content analysis. However, in this case, the source of the documents is the websites and profiles on social media platforms, such as Instagram, LinkedIn, and Twitter, of public ports, private port terminals, regulatory federal agencies, inspectors, and planners of the national port system. This supplementary analysis provided a deeper understanding of organizational sustainability practices and enabled an analysis of their communication strategies and ways of engaging with their relevant stakeholders. This analysis was conducted in September 2022.

Interviews

This Guide is the result of a collaborative effort involving the LabPortos Research Group of the Federal University of Maranhão, the Association of Private Port Terminals (ATP), and the Brazilian Association of Port and Waterway Entities (ABEPH) and its sustainability committees. The ATP committee, called Sustentar, comprises representatives from all its associated TUPs, while ABEPH encompasses the Environmental Technical Chamber. These two committees selected professionals to be interviewed, presented the mapping of best sustainable practices, and validated the Guide. The several interviews with port sector professionals helped gather information and ensured that the Guide reflected the sector's vision, and not just that of its technical team responsible. In addition to industry professionals, teachers and researchers on sustainability were also interviewed. The interviews were conducted between October and December 2022.

Online Questionnaires

Online questionnaires with specific questions aimed at mapping sustainability actions and their correlation with the Sustainable Development Goals (SDGs) of the 2030 Agenda proposed by the UN were conducted digitally. The questionnaires were applied from July to December 2022.

Technical visits

The team conducted visits to several public ports and private port terminals, where they interacted with representatives from various departments, including sustainability, environment, institutional relations, community relations, and operations. This phase provided insights into sustainable practices and helped to refine the concept and structure of the Guide. The technical visits were in November and December 2022..

Benchmarking

To benchmark, which means to identify the best sustainability practices for replication or adaptation, we analyzed national and international sustainability guides that are specific to the port sector, as well as those referencing generic sectors, that were prepared by reputable organizations. This was done to identify the main information regarding the sustainability journey and to advance its adaptation for the Brazilian port sector. The main guides and frameworks analyzed were:

» **a)** ESPO Environmental Report 2022. EcoPortsinSights. ESPO – European Sea Ports Organization, 2022;

» **b)** Guide to Sustainability and ESG in companies. How to start, who to involve, and what to prioritize. B3 Stock Exchange, 2022;

» **c)** ESG Guide. Best practices for the banking sector. Brazilian Association of Banks, 2022;

» **d)** Best practices for the ESG Agenda in organizations. IBGC – Brazilian Institute of Corporate Governance, 2022;

» **e)** Socio-institutional Relationship Guide for the mining sector. Brazilian Mining Institute (IBRAM), 2022;

» **f)** Guide to Environmental Certification and Sustainability Reporting for Ports of the Americas. CIP - Inter-American Committee on Ports, 2020;

» **g)** World Ports Sustainability Report 2020. IAPH – International Association of Ports and Harbors, 2020;

» **h)** ESG as a strategy for business continuity in the 21st century: Perspectives of Sustainability professionals. Global Reporting Initiative, 2018;

» **i)** Step-by-Step Guide to Sustainable Supply Chain Management. Federal Ministry for The Environmental, Nature Conservation, Building and Nuclear Safety, Germany, 2017;

» **j)** Environmental, Health, and Safety Guidelines for Ports, Harbors, and Terminals. World Bank Group, 2017;

» **k)** ESPO Green Guide. Towards excellence in port environmental management and Sustainability. ESPO – European Sea Ports Organisation, 2012.

Construction of the First Version of the Guide

The initial methodological phases, including bibliographic review, regulatory analysis, content analysis, and digital analysis, were used to create an overview of the sustainability of the Brazilian port ecosystem.

The subsequent methodological phases, such as interviews, online questionnaires, technical visits, and benchmarking, allowed us to present the port sector's perspective in this Guide, rather than just the perspective of academia and of our technical team. This approach enabled us to develop the first version of the Guide

Validation with the Ports of the First Version of the Guide

The first version of the Guide was validated by presenting its structure, content, vision, and concepts to the collaborators designated by the Sustaining Committee of the ATP and the Technical Chamber of the Environment of ABEPH, seeking feedback and suggestions for improvement. This stage was conducted between November and December 2022.

Completion of the Guide

After completing these validation rounds, the technical team incorporated the suggestions and finalized their work by delivering this final version of the Best Practices Guide for Port Sustainability: an ESG Strategy.

4

TYPOLOGY OF BEST PRACTICES

This chapter presents a typology of best practices identified in the mapping of sustainability reports and integrated reports of port organizations.

The content analysis applied in this phase considered classic literature on project management and planning, as well as reference guides and manuals in the area of sustainability. Moreover, information contained in the following documents was analyzed: sustainability reports, financial integrated management reports, environmental agendas, sustainability policies, master plans, development plans, and zoning plans. The resulting typology of best practices is categorized into "The 6 Ps of Best Sustainable Practices":

- **Policies**
- **Programs**
- **Processes**
- **Plans**
- **Projects**
- **Partnerships**

For each typology identified, mapped, and analyzed, we presented a concept based on the content of the documents. It should be noted that the classification was based on the self-declaration of the organizations in their documents. Therefore, if an organization declares an action to be an environmental education program, we consider it as such. We did not conduct a critical analysis to reclassify it as a project or any other typology. This classification does not reflect the technical team's definition, but rather the perspective of the port ecosystem organizations themselves.

After defining the organized concept of each typology of best practices, we identified and analyzed the stakeholder categories of "customers" who interact directly or indirectly with port organizations and communities involved or affected by maritime activities and ports.

The stakeholder categories identified in these best practices were:

1- Clients / customers

2- State / Government

3- Senior Management

4- Employees

5- Suppliers

6- Communities

7- Academia

8- NGOs

9- General

The Table 1 presents the definition of the typology, stakeholders, and general description of the activities.

- ***Table 1*** **- Policies**

TYPOLOGY	POLICIES	
CONCEPT	**STAKEHOLDER**	**DESCRIPTION**
The expression of comprehensive rules of conduct formalizes and discloses guidelines, roles, and responsibilities of the company's governance structures in repetitive decision-making processes.	**State**	Compliance with legislation and other requirements by integrating economic, environmental, and social issues into management.
	Senior Management	Guidance on ethical conduct and compliance, energy efficiency, and defining remuneration rules for all individuals and company structures.
	Employees	Adoption and guidance towards behavioral and conduct issues related to topics such as unions' relations, compliance, and anti-bribery policy.
	Suppliers	Adoption and control regarding behavioral good practices.
	Communities	Maintaining positive relationships with all communities directly or indirectly involved in port activities, including practicing effective communication with native peoples, quilombolas, and other social groups.
	General	Formalizing environmental and social commitments throughout the supply chain and with society at large.

Source: The Authors of This Guide, from Sustainability Reports and Integrated Reports of Public Ports and Private Port Terminals.

- *Table 2* - **Plans**

TYPOLOGY	PLANS	
CONCEPT	**STAKEHOLDER**	**DESCRIPTION**
Sets of projects and programs with broad, medium, and long-term objectives that involve internal and external stakeholders.	**General**	Engaging with society in general and with the organization's value chain, formalizing commitments with stakeholders, and implementing sustainable practices.
	Communities	Establishing commitment focusing on human rights, community relationship, and resilient territories with clear and agreed-upon deadlines.
	Senior Management	Actions and control systems based upon audits and other management tools.
	State	Implementing actions to repair and mitigate eventual environmental impacts of activities, such as protecting biomes and forests.
	Employees	Raising awareness among the internal public, whether operational or administrative, about environmental issues and encouraging proper actions through incentives and rewards.

Source: The Authors of This Guide, from Sustainability Reports and Integrated Reports of Public Ports and Private Port Terminals.

- *Table 3* - **Programs**

TYPOLOGY	PROGRAMS	
CONCEPT	**STAKEHOLDER**	**DESCRIPTION**
A grouping of all the efforts of an organization around a specific theme in a set of integrated projects, considering both the strategic and tactical levels.	**Communities**	Identifying and implementing investments and port efforts while considering issues relevant to the communities, such as job creation, strengthening the informal economy, environmental education, and incentives for sports and culture.
	State	The implementation of a set of practices is aimed at repairing issues identified in the environmental controls that are required by law.
	Employees	Implement engagement initiatives for employees and third-party personnel to encourage volunteering, and ensure proper and conscious management of waste.
	Suppliers	The development of service providers and the control of their activities for improving the quality of services provided, the uphold ethics and proper conduct while promoting innovation.
	General	A set of agendas focused on society's value chains, with a particular emphasis on sustainability, green and responsible logistics, and effective compliance practices.
	Senior Management	Establishment and support of control mechanisms, auditing, and accountability in risk, crisis, compliance, and environmental audit management.

Source: The Authors of This Guide, from Sustainability Reports and Integrated Reports of Public Ports and Private Port Terminals.

- *Table 4* - **Projects**

TYPOLOGY	PROJECTS	
CONCEPT	**STAKEHOLDER**	**DESCRIPTION**
Temporary efforts with defined scope, budget, and fixed deadlines aiming to achieve expected results.	**Communities**	Initiatives to foster relationships between the port and neighboring communities, promoting environmental action and awareness through innovative, entrepreneurial, cultural, and sporting activities.
	State	Practices that support governments in strengthening public education and implementing policies to control and prevent deforestation, focusing job opportunities for young people.
	General	Actions that interact with society in general involve dialogue, procedures, and participatory consultations for problem joint resolution.
	Employees	The adoption and encouragement of volunteering, along with the implementation of good practices in interactions with affected communities.
	Suppliers	Gathering information and promoting dialogue between the public and social groups involved, such as truck drivers and service providers.

Source: The Authors of This Guide, from Sustainability Reports and Integrated Reports of Public Ports and Private Port Terminals.

- ***Table 5* - Processes**

TYPOLOGY	PROCESSES	
CONCEPT	**STAKEHOLDER**	**DESCRIPTION**
A structured set of sequenced activities aimed at achieving sustainable results.	**State**	Compliance with environmental norms and legal requirements due environmental control and practices in order to report and subsidize the mitigation of eventual damages caused by port activities.
	Senior Management	Implementing forms of control and accountability in order to achieve excellence in risk management, as well as in energy, water, and natural resources management.
	Employees	Daily activities description should focus on the rational use of resources and proper waste disposal, with an emphasis on recycling solid waste and the responsible use of water and effluent emissions. The goal is to achieve excellence in these areas.
	Suppliers	Option on suppliers with superior and certified environmental performance. For example, the use of vessels that emit less pollution.
	NGOs	Continuous monitoring of the impact of maritime and port activities on natural biomes, with a particular focus on aquatic fauna.

Source: The Authors of This Guide, from Sustainability Reports and Integrated Reports of Public Ports and Private Port Terminals.

- *Table 6* - **Partnerships**

TYPOLOGY	PARTNERSHIPS	
CONCEPT	**STAKEHOLDER**	**DESCRIPTION**
Any formal or temporary relationship between the port organization and an external stakeholder that is aimed at achieving a specific action.	**Communities**	Encouraging joint participation between ports and communities, stimulating the creation of jobs and small businesses, promote local cultures, provide environmental education for all (with a focus on children and adolescents), and fostering sport practices.
	State	Collaboration between companies and public administrations across all three spheres is essential for initiatives such as preserving fauna and flora species, implementing green and reverse logistics, and providing fiscal incentives, among other actions.
	NGOs	Collaboration with NGOs to aid neighboring communities during calamitous events, such as the pandemic, confrontation of sexual exploitation of young people and children, and preserving fauna and flora species.
	Academia	Collaboration between companies and educational institutions in order to stimulate and produce knowledge for the community's development, social entrepreneurship, and environmental preservation.
	Customers	Joint initiatives and efforts between the port administration and vessel owners, ensuring, among other issues, the environmentally appropriate disposal of waste.

Source: The Authors of This Guide, from Sustainability Reports and Integrated Reports of Public Ports and Private Port Terminals.

5

BEST ENVIRONMENTAL PRACTICES

The typology of the best sustainable practices identified in the sustainability reports and integrated reports can be categorized into 6Ps, namely Policies, Plans, Programs, Projects, Processes, and Partnerships. These categories describe the main actions proposed for the activities, and are aimed at reinforcing compliance with legislation, meeting the requirements of users and customers, and adopting a philosophy of respect for the rights of future generations to the planet.

In the following section, we will present the 6 Ps of the best sustainable practices identified and analyzed in the public documents, especially in the sustainability reports and integrated reports, with a focus on the environmental dimension.

Environmental Policies - *Table 7*

No.	TITLE	DESCRIPTION
1	**Sustainable Purchasing**	Implementing and promoting compliance with environmental criteria during the procurement of products and services, as well as developing internal sustainability initiatives in the operations.
2	**Water Master Plan**	Expanding the use of alternative sources of water, reducing the need for abstraction from the public system.
3	**Energy Efficiency Master Plan**	The energy generation and consumption system monitoring using key operational efficiency indicators aligned with the development and maintenance energy management policy of the unit.
4	**Environmental and Energy Policy**	Compliance with guidelines that encourage, guide, and prioritize energy efficiency in the group's companies, as well, adapted to their economic, social, regional, and environmental context.
5	**Biodiversity Policy**	Collaborating with biodiversity in the areas where the company operates, identifying potential risks, and implementing appropriate controls.

6	**Climate Change Policy**	Guidance on managing risks and opportunities related to climate change and reducing carbon emissions in operations.
7	**Global Management Policy of Waste Disposal**	Ensuring compliance with internal standards, guidelines, laws, and public regulations while promoting management and governance practices at the state of art.
8	**Socioenvironmental**	Incentivizing the development of neighbor communities affected by port activities, in conjunction with environmental conservation, focusing positive economic and social outcomes.
9	**Sustainability**	Environmental management, with a focus on preventing and controlling environmental degradation, as a sustainable value of both the company and the surrounding communities.

Source: The Authors of this Guide, from Sustainability Reports and Integrated Reports of Public Ports and Private Port Terminals.

Environmental Plans - *Table 8*

No.	TITLE	DESCRIPTION
1	**Environmental management**	Guidelines to balance the long-term development of the port organization with the responsible use of water resources to meet the demands of enterprises.
2	**SDG**	Enlarging organization value chain to embark the society by setting environmental goals for 2025, which will contribute to achieving the UN SDGs.
3	**Suppliers**	Establishing suppliers conduct standards in order to prevent possible practices of deforestation or conversion of native vegetation for production.

Source: The Authors of this Guide, from Sustainability Reports and Integrated Reports of Public Ports and Private Port Terminals.

Environmental Programs - *Table 9*

No.	THEME	DESCRIPTION
1	Decarbonization	Identifying actions to accelerate low carbon economy projects and to decrease their costs, thereby enhancing the competitiveness of the terminal.
2	Energy and Water	Promoting conscious and rational consumption of energy and water, leading to a behavioral change in the organization and its operations.
3	Waste management	Implementing campaigns for reducing waste generation and promoting selective collect programs among employees and collaborators in order to increase recycling efforts.
4	Environmental management	Focusing organization's economic development sustainability strategies on controlling and prevention processes during emergencies and environmental accidents.
5	Biodiversity Management	Implementing initiatives for the proper use of natural resources in order to meet current demands while maintaining quality of life conditions for future generations.
6	Innovation	Stimulating venture initiatives (startups) and accelerating the adoption of low carbon technologies, bioenergy, and product development in order to support customers' reducing emissions goals.
7	Climate Change	Implementing environmental monitoring programs for air quality comprising conducting inventories of Greenhouse Gases (GHG Protocol) and monitoring atmospheric emissions.
8	Productive chain	Reducing the environmental impact of transporting products via road and river, both using own fleet and of the suppliers.
9	Volunteering	Encouraging volunteer participation in environmental initiatives.
10	Environmental Audit	Continuous monitoring the environmental performance of the company's management system.

Source: The Authors of this Guide, from Sustainability Reports and Integrated Reports of Public Ports and Private Port Terminals.

Environmental projects - *Table 10*

No.	THEME	DESCRIPTION
1	Flora	Performing the organization as a mitigator of socio-environmental impact in rural areas by restoring degraded areas in the Brazilian territory.
2	Recycling	Collecting and treating plastic waste from beaches, mangroves, and other sensitive areas.
3	Environmental education	Raising awareness among young people and children about respecting and caring for the environment, as well as for the significance of preserving resources, promoting citizenship, and volunteering.
4	Environmental management	Implementing information systems to support the assessment of environmental impacts on affected ecosystems and also to spread this knowledge, as well to provide human resources training.

Source: The Authors of this Guide, from Sustainability Reports and Integrated Reports of Public Ports and Private Port Terminals.

Environmental Processes - *Table 11*

No.	TITLE	DESCRIPTION
1	Control of water use	Daily monitoring of water consumption through the use of digital and analogue water meters distributed among supply points. Additionally, data consolidation systems implemented to support management decisions.
2	Eco Type vessels	Prioritizing to contract ships that use low sulfur fuel and have lower fuel consumption as part of the efforts to decarbonize the operational activities.

3	**Atmospheric emissions**	Periodic monitoring of atmospheric emissions, including particulate matter (PM) and inhalable particles (IP). To promote a clear understanding with environmental authorities and communities about emission reduction levels and targets.
4	**Energy**	Conducting PISW (Project Identification and Selection Workshop) practices to identify energy efficiency problems and opportunities to reduce steam, electricity, and fuel consumption.
5	**Effluent Management**	Implementing treatment systems of sanitary effluents and the collection of rainwater for reuse, as well as the management of oily effluents. Additionally, to disposal sanitary waste for external treatment to comply with legal requirements.
6	**Waste Management**	Collecting and disposal the operational waste for proper treatment and eventual reintroduction into production chains in circular economics actions.
7	**Operation Environmental Management**	Implementing systems and instruments to monitor environmental performance in order to identify and promote initiatives for the continuous improvement of processes.
8	**Greenhouse Gas Inventory**	Mapping GHG emission sources and identifying and quantifying emissions from port activities.
9	**Fauna and Flora**	Conducting regular surveys to monitor phenological changes, managing invasive alien species, applying topdressing fertilizers, implementing controls and management measures, anticipating visitor traffic and other public uses.
10	**Risk management**	Ensuring the safety of the environment during activities by effectively anticipating and correcting any uncertainties, risks, or threats.

Source: The Authors of this Guide, from Sustainability Reports and Integrated Reports of Public Ports and Private Port Terminals.

Environmental Partnerships - *Table 12*

No.	THEME	DESCRIPTION
1	**Environmental education**	Implementing environmental education activities for residents in order to foster new habits, raise awareness of the rational use of natural resources, promote correct disposal of domestic waste, and enhance the appreciation of environmental heritage as a tourist attraction.
2	**Fauna**	Balancing port operations development with the conservation of endangered species by implementing environmental education actions, community engagement, monitoring, and the generation of scientific knowledge.
3	**Recycling**	Connecting retail chains, malls, restaurant chains, City Halls, NGOs, public institutions, and companies to broaden the program's scope, providing consumers with practical and sustainable methods for disposing of used frying oil in an environmentally friendly manner. The oil will be transformed into raw materials for the production of new products, such as biodiesel.
4	**Nature Reserves**	Implementing actions to protect, restore, and promote biodiversity in a restricted fragment located in a private area, including actions and services that generate scientific knowledge and provide environmental, social, and economic benefits.
5	**Private Social Investment**	Implementing voluntary forms of transferring private resources to environmental projects or organizations in planned, controlled, and systematic ways.
6	**Environmental Monitoring**	Implementing environmental monitoring programs in the port area and its surroundings in several issues such as groundwater, coastal lagoons, wetlands, sea, bio-invasion, air quality, noise, marine sedimentological dynamics, surrounding fauna and flora, and coastal erosion.

Source: The Authors of this Guide, from Sustainability Reports and Integrated Reports of Public Ports and Private Port Terminals.

6

BEST SOCIAL PRACTICES

This chapter presents the 6 Ps of the best sustainability practices in the broad concept of social practices, including Policies, Plans, Programs, Projects, Processes, and Partnerships. The organizations are made up of people, but this definition, usually, now is extended to include neighboring communities and all those who depend on, interact with, or are affected by the organizations' actions. This includes a set of stakeholders to be considered in communications, actions, and incorporated in measuring organizational results.

Ports are multifaceted in their activities and multidisciplinary in their operations. We must not forget that water transport has been fundamental in the development and history of nations. Ports go beyond their physical limits and work together with communities to compensate for and mitigate any damage and develop actions that contribute to the improvement of all people involved and committed, from employees to users, neighboring populations, authorities, and other relevant publics.

Below, we present the 6 Ps of the best sustainable practices for the social dimension, identified and analyzed in the aforementioned public documents, mainly in the sustainability reports and integrated reports.

Social Policies - *Table 13*

NO.	TITLE	DESCRIPTION
1	**Sustainable Purchases**	Compliance with social criteria during the purchasing of products and contracting of services, as well as the development of internal initiatives focused on sustainability in operations.
2	**Human rights**	Promoting actions to identify and prevent potential negative impacts of port activities on human rights.

3	**Policy for Indigenous Peoples**	Supporting activities by indigenous communities, promoting dialogue, and monitoring.
4	**Socioenvironmental**	Implementing actions to develop communities in the areas where it operates, taking into consideration economic, social, and environmental aspects, with the goal of promoting sustainability and enhancing the quality of life.

Source: The Authors of this Guide, from Sustainability Reports and Integrated Reports of Public Ports and Private Port Terminals.

Social Plans - *Table 14*

NO.	TITLE	DESCRIPTION
1	**Communities**	Implementing socioeconomic development actions and projects focusing the native peoples and traditional communities such as fishermen, caiçaras, quilombolas, riverside communities, and terreiro communities.
2	**SDG**	Implementing the UN SDGs regarding value and supply chains, with a particular emphasis on society and the social goals set for 2030.

Source: The Authors of this Guide, from Sustainability Reports and Integrated Reports of Public Ports and Private Port Terminals.

Social programs - *Table 15*

NO.	THEME	DESCRIPTION
1	**Donations**	Donations of school materials, construction materials, to support vegetable cultivation, food, furniture, and appliances focusing the neighboring communities.

2	**Education**	Supporting for students enrolled in schools through financial aid, school supplies, and tutoring projects and also offering qualification courses.
3	**Environmental education**	Establishing relationships and building close ties with communities through dialogic and collective processes, projects, and actions in order to preserve the environment and improve the daily lives of community members.
4	**Entrepreneurship**	Fostering new businesses and stimulating socioeconomic growth by encouraging the entrepreneurial character of the participants.
5	**Employability**	Generating jobs for the independence of the community and socially and economically vulnerable groups.
6	**Socioeconomic Development**	Promoting the socioeconomic development of communities through collaboration and participation in production and supply chains.
7	**Heritage Preservation Program**	Strengthening the cultural identity through courses, workshops, and projects in order to rescuing and appreciating the artistic and cultural heritage of communities. These initiatives also focus on the restoration of historical heritage.
8	**Social and Environmental Responsibility Program**	Supporting local public authorities in providing assistance to workers with health, education, public security, and social assistance services, as well as facilitating their integration with local communities.
9	**Productive chain**	Reducing the social impacts that arise from the transportation of products by our own fleet and third-party carriers on roads and rivers.
10	**Volunteering**	Encouraging volunteer participation in social initiatives within the local community.

Source: The Authors of this Guide, from Sustainability Reports and Integrated Reports of Public Ports and Private Port Terminals.

Social Projects - *Table 16*

NO.	THEME	DESCRIPTION
1	**Drivers**	Understanding and exchanging information with drivers in order to a better understanding of their activities and difficulties and to propose better solutions for them.
2	**Dialogue with communities**	Creating instruments for dialogue in a participatory manner with community representatives.
3	**Sport**	Encouraging sports projects, even in special situations such as pandemics.
4	**Flora**	Searching continuously the concept of organizations with a social impact in rural areas by restoring degraded areas.
5	**Education**	Identifying and addressing obstacles to ensure the right to education in communities, such as collaborating with municipalities to implement measures that reduce school dropout rates.
6	**Leisure**	Promoting film screenings in communities that lack cultural facilities, such as cinemas.
7	**Recycling**	Forwarding and disposal of waste to cooperatives, communities, and associations.
8	**Culture**	Promoting actions to rescue and preserve local and regional history, and creating spaces where new generations can learn about the memory of past events.
9	**Donation**	Promoting campaigns to donate essential products to families in the surrounding area.
10	**Entrepreneurship**	Promoting and fostering closer relationships between agricultural producers and the restaurant responsible for supplying food to the organization's cafeterias in order to contribute to producers' family income.

11	**Volunteering**	Promoting free learning sessions on trends and best practices in volunteer programs.
12	**Violence**	Promoting lectures and workshops on critical topics, such as health and domestic violence, for communities living near the port.
13	**Employability**	Hiring of high school students from public schools or children of port workers as apprentices, provided their family income is less than one minimum wage.
14	**Quilombola**	Implement education actions and awareness of preventive health practices for Quilombola communities.
15	**Canine Health**	Carrying out vaccination campaigns for domestic and stray dogs in communities near the port.

Source: The Authors of this Guide, from Sustainability Reports and Integrated Reports of Public Ports and Private Port Terminals.

Social Processes - *Table 17*

NO.	TITLE	DESCRIPTION
1	**Risk management**	Ensuring operational and occupational safety during activities, managing uncertainties, risks, and threats.

Source: The Authors of this Guide, from Sustainability Reports and Integrated Reports of Public Ports and Private Port Terminals.

Social partnerships - *Table 18*

NO.	THEME	DESCRIPTION
1	**COVID-19**	Expanding the care capacity of local hospitals in cases of COVID-19 in order to ensure that the care of other illnesses is not compromised. Additionally, artificial respirators could be purchased and sent to the UPA direction of the municipalities.

2	**Drugs and Violence**	Implementing inclusive community spaces with sustainable architecture in regions that experience high rates of violence and social vulnerability. These spaces are intended to serve the local communities.
3	**Entrepreneurship**	Partnering with Municipal Secretariats to promote fairs for the sale and exchange of clothing, services, appliances, electronics, furniture, handicrafts, and other items for residents to generate opportunities for improving socioeconomic conditions. This partnership could be in collaboration with the Commercial Association of the municipality where the port is located.
4	**Sport**	Promoting swimming and water aerobics classes, with a special focus on public school students, the elderly, and individuals with special needs.
5	**Sexual Exploitation of Children and Adolescents**	Joining the Childhood Brazil, a partnership with the Ethos Institute and with support from the International Labor Organization, establishing a Pact aiming at eradicating the sexual exploitation of young people and adolescents on highways. The Pact could establish ways to promote conversation circles and the delivery of informational materials.
6	**Innovation**	Creating attractive spaces for students and pedagogical staff in public schools, which enable new forms of learning, by adapting and donating technological equipment.
7	**Private Social Investment**	Transferring private resources to projects or social organizations in a planned, controlled, and systematic manner.
8	**Job market**	Collaborating to professional qualification of students living in neighboring communities. Along with practical and theoretical classes, it could to provide opportunities for developing interpersonal skills, which are crucial for success in the job market.
9	**Quilombola**	Investing financially in projects of individual producers, micro-entrepreneurs, and quilombola associations.

Source: The Authors of this Guide, from Sustainability Reports and Integrated Reports of Public Ports and Private Port Terminals.

7

BEST GOVERNANCE PRACTICES

The chapter summarizes the categorization of the Governance dimension, which is considered the most complex in the ESG strategy. Although there is a recent approach to this topic, there is still a lack of greater understanding of effective practices, as well as definitions and alternatives for measuring and monitoring them. To address this issue, best practices were identified in the Sustainability Reports of port organizations.

The term "compliance" refers to adherence to public rules and regulations, as well as codes of conduct that prohibit corrupt practices by counterparties, thus reinforcing compliance with rules of conduct. The challenge lies in evidencing and disclosing these practices. The survey conducted revealed that explaining the fulfillment of these guidelines is the basis for their adoption in port organizations.

The 6 Ps of the best sustainability practices for the Governance dimension, which includes the aforementioned compliance practices, the 4 Ps identified were Policies, Plans, Programs, and Processes. Project and Partnership actions were not identified in the Governance dimension.

Governance Policy - *Table 19*

NO.	THEME	DESCRIPTION
1	**Anti-corruption**	The establishment of standards of conduct and monitoring of any type of contribution to public and/or private entities ensures compliance with the organization's ethical principles. This includes guidance and auditing of corporate and individual behavior, particularly of our own professionals and service providers, in relation to their integrity.
2	**Conduct**	Guidance and monitoring of behavioral and conduct standards should be applied to all employees, third parties, and service providers to ensure effectiveness.

3	**Ethics, compliance and compliance**	***Searching for recognition and acknowledgement of the behavior of all employees and suppliers. Establishing principles, guidelines, and compliance functions at all levels of the company, including the management team, employees, and service providers, to promote and disseminate a culture and practice of compliance.***
4	**Integrated management**	Continuously improving processes while complying with relevant legislation and requirements.
5	**Integrated Risk Management**	Identifying the necessary actions to mitigate, avoid, transfer, or accept risks in order to increase the organization's commitment to objectives.
6	**Shareholder Remuneration Policy**	Ensuring financial sustainability in the short, medium, and long terms while providing predictable payment flows for shareholder remuneration.
7	**Union relations**	Maintaining respectful and harmonious relationships with unions involves sharing all aspects of collective bargaining in a clear and transparent manner.

Source: The Authors of this Guide, from Sustainability Reports and Integrated Reports of Public Ports and Private Port Terminals.

Governance Plans - *Table 20*

NO.	TITLE	DESCRIPTION
1	**Stakeholders**	Establishing systems and forms of interaction, communication, and frequency of events and communication instruments with stakeholders.

Source: The Authors of this Guide, from Sustainability Reports and Integrated Reports of Public Ports and Private Port Terminals.

Governance Program - *Table 21*

NO.	THEME	DESCRIPTION
1	**Compliance**	Establishing standards and monitoring compliance with laws, regulations, and codes of conduct in processes and operations.
2	**Communication**	Implementing communication and visibility of operations actions and programs, establishing an open and transparent channel for dialogue with the population.
3	**Suppliers**	Developing campaigns and awards for the best suppliers, in accordance with the best market practices.
4	**Productive chain**	Implementing systems to identify social, environmental, and economic impacts, including projects in partnership with all actors in the production chain.

Source: The Authors of this Guide, from Sustainability Reports and Integrated Reports of Public Ports and Private Port Terminals.

Governance Processes - *Table 22*

NO.	TITLE	DESCRIPTION
1	**Risk management**	Implementing enterprise risk management effectively addressing uncertainties, risks, and threats.

Source: The Authors of this Guide, from Sustainability Reports and Integrated Reports of Public Ports and Private Port Terminals.

8

STAKEHOLDERS

This chapter comprises four sections. The first two provide a theoretical background for understanding the concept of stakeholders and present a general analysis of the stakeholders in the port ecosystem.

The last two sections present the mapping of stakeholders identified through the analysis of self-declarations of port organizations in their Sustainability Reports and Integrated Reports. We have divided this section into public ports and private terminals because we believe that groups of ports may have similar or different views on who their main stakeholders are.

Conceptualizing Stakeholders

In the 1980s, the Stakeholder theory emerged with a central focus on managing agents (actors) interested in or influenced by an organization's activity. A stakeholder (relevant public) is understood as "any group or individual that can affect or is affected by the achievement of the company's objectives" (FREEMAN, 1984, p.41 as cited by CARROLL, 2004). This includes shareholders, employees, customers, suppliers, financial institutions, and society in general.

> ***The Stakeholders approach emphasizes the need for the company to formulate strategies and satisfactory agreements for the various stakeholders, with the objective of guaranteeing its survival. It is assumed that the organization is not an isolated entity, the environment in which it operates is unstable, uncertain and interdependent, so the organization's objectives cannot be understood only from the point of view of its owners or shareholders (FREEMAN, 1984, p.188-189 apud CARROLL, 2004, p. 119) .***

Stakeholder management starts with mapping, and is based on the organization›s strategic objectives and performance in the market (CAMPBELL, 1997). One method of identifying stakeholders is to divide them into three groups:

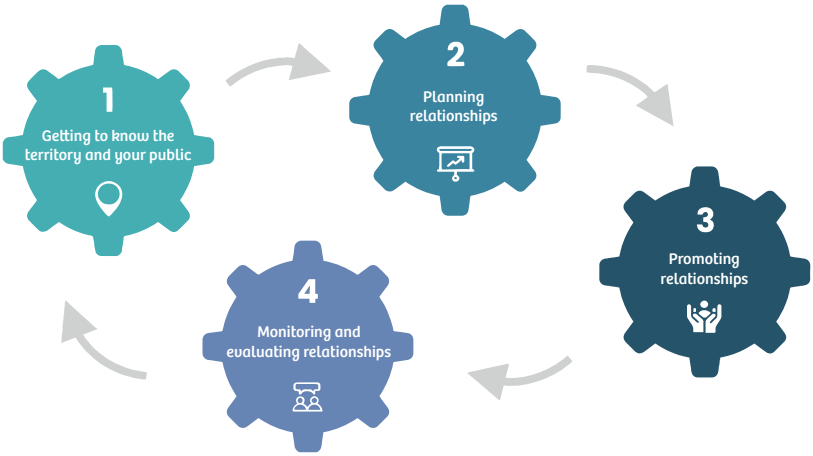
» **a) Agents:** those who directly manage, support or contribute to the development and maintenance of the organization;

» **b) Beneficiaries**: those who profit or wish to profit, or indirectly benefit from the organization's results;

» **c) Victims:** those who can be harmed directly or indirectly (GUBA; LINCOLN, 1989).

The stakeholder management process can be represented in the Figure 1:

• **Figure 1- Stakeholder management process**



Source: IBRAM (2022).

The collection of information from stakeholders can be divided into two groups, with and without intermediation.

• **Table 23 - Gathering information from stakeholders**

Data Collection with Mediation	Data Collection without Mediation
In-depth interviews	Structured form autofill
Structured interviews	Sending information and documents (data administrative)
Video conferences	Analysis of secondary data (e.g., Demographic Census, PNAD, etc.)
Technical visits	Analysis of spatial data (maps).
Observation in loco	
Conversation circle and focus groups	
Oral history	
Social Dialogue	

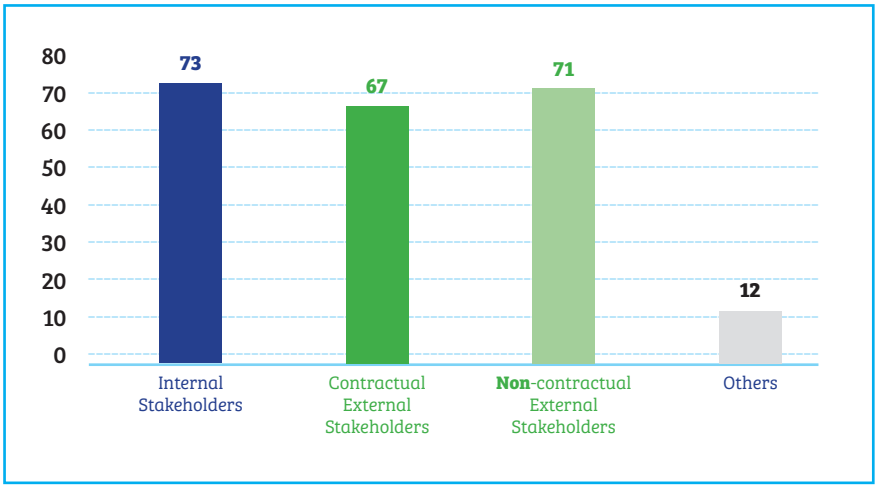
Source: IBRAM (2022).

Stakeholders and the Port System

The port ecosystem should consider shifting towards a multi-stakeholder approach instead of a one-way focus. Traditionally, only the port authority and the most directly connected organizations, such as tenants and operators, were considered stakeholders. However, today there are several stakeholders involved in the process of planning and establishing strategies for ports (DOOMS; MARCHARIS, 2003).

According to a survey of port authorities in the European Union, 70% of them claimed to have a master plan for port development that considers the expectations of stakeholders. These stakeholders include internal stakeholders (such as employees and shareholders), non-contractual external stakeholders (such as local authorities, citizens, and NGOs), and contractual external stakeholders (such as owners and terminal operators). The plan also covers other levels of government and other categories (see Graph 1).

- **Graph 1- Stakeholders involved in port master plans**



Source: ESPO (2011).

One of the initial stakeholder classifications in the port sector divided them into two categories: internal and external. This basic classification depended on the various forces involved in the decision-making process and planning formulation (NOTTEBOOM; WINKELMANS, 2002). Another classification, proposed by DE LANGEN (2006), grouped the stakeholders , as presented in the Table 24.

A.	Transport companies (including port operators);
B.	Job market;
C.	Manufacturing industry;
D.	Port users (exporters and importers);
E.	Groups;
F.	Local community;
G.	Local and regional government
H.	National government.

• Table 24 – Stakeholders of the port system

Stakeholders	Interests	Forms of influence	Influence indicators
Port Operators and Transport Companies	Low port costs, high-quality infrastructure, safe operations, and efficient inspection and customs procedures.	Lobbying through class associations to divert cargo from other ports.	The presence of particular class associations within the port industry, the extent of subsidies allocated to the sector (including infrastructure tariffs and initiatives aimed at alleviating congestion), and the financing and operation of customs and security regulations.
Job market	High wages and job security.	Strikes and their impact on the image of port work.	Salary level; collective bargaining agreement.
Manufacturing industry	The creation of an agglomeration economy in port clusters, the availability of space for manufacturing facilities, and regulations.	Class associations lobbying for investments outside of port clusters.	The existence of specific class associations in the port sector.
Port users (exporters and importers)	Low transportation costs, reliability, and safety in operations.	Lobbying by class associations to divert cargo from other ports.	The Existence and Functions of Port User Associations

Local environmental groups	Regulations that prevent negative environmental impacts.	The use of procedures to delay or avoid investments and port expansion, as well as political pressure.	The existence of local environmental groups derives power from lawsuits and court proceedings.
Local community	Creating employment opportunities for local labor, controlling traffic congestion to a certain extent, and ensuring that there is no compromise on the quality of life.	There are no grammatical errors in the input. No changes needed.	The existence of neighborhood associations
Local and regional governments	Contribution to the regional economy through regional taxes and the effective transformation of the port-city relationship.	Regional planning and public investment in ports.	Public ownership of land as the ownership and governance structure of the port authority.
National government	Low transportation costs and the recovery of infrastructure investments.	National investment in ports and the creation of port laws.	The national role in infrastructure planning.

Source: Adapted from DE LANGEN (2006).

TIP

Make sure to identify and map stakeholders beyond the port boundaries, and also consider including the academy as a partner

Private Port Terminal Stakeholders

The list of stakeholders for Private Port Terminals was based upon the self-declaration of port organizations in their Sustainability Reports and Integrated Reports. This stakeholder classification includes Customers, Internal Groups, and External Groups.

We conducted a content analysis of the published reports to map the stakeholders, and we know that there could be other stakeholders that Private Port Terminals consider, but not included in this mapping because they were not mentioned in the reports.

- **Table 25 – Customers of private port terminals**

CUSTOMERS/CLIENTS/USERS
Truck drivers
Customers
Consumers
Private sector companies in the port area
Carriers
Farmers

Source: The Authors of this Guide, from Sustainability Reports and Integrated Reports of Private Port Terminals.

- **Table 26 - Internal group of private port terminals**

INTERNAL GROUP
Shareholders
Employees
Third-party employees
Executives
Suppliers
Leadership
Partners
Service providers

Source: The Authors of this Guide, from Sustainability Reports and Integrated Reports of Private Port Terminals.

- **Table 27 - External group of private port terminals**

EXTERNAL GROUP
Academia
Regulatory agencies
Associations
Blogs and media
Communities
Communities in area of influence
Traditional communities or indigenous people
Concurrent
Class entities
Experts
Public health establishments
Foundations
State's government

Federal government
Local government
Press
Public and private educational institutions
Financial institution
Investors
Media
Environmental movements
Social movements
NGOs
Civil Society Organizations
Multilateral and Business Organizations
Public agencies
Regulatory bodies
Capital market
Unions

Source: The Authors of this Guide, from Sustainability Reports and Integrated Reports of Private Port Terminals.

Stakeholders of Public Ports

The stakeholders of Public Ports were also identified based on the self-declaration of port organizations in their Sustainability Reports and Integrated Reports. The stakeholders were classified into three types: Customers, Internal Group, and External Group.

In this sense, we used the same mapping methodology as for the Private Port Terminals, only pointing stakeholders named in the reports, although we understand that Public Ports consider other stakeholders not include in this mapping, since they were not part of the reports.

- **Table 28 - Customers of public ports**

CUSTOMERS/CLIENTS
Shipping agencies
Shipowners
Tenants
Business community
Port complex companies
Exporters
Ferry boat
Importers
OGMO
Logistic operators
Port operators
Ferry passengers
Pilotage
Producers
Carriers

Source: The Authors of this Guide, from Sustainability Reports and Integrated Reports of Public Ports.

• Table 29 - Internal group of public ports

INTERNAL GROUP
Top management
Collaborators
Employees
Trainees
Railwaymen
Suppliers
Employees
Professionals from the port authority
Port and navigation security professionals
Third-party employees

Source: The Authors of this Guide, from Sustainability Reports and Integrated Reports of Public Ports.

• Table 30 - External group of public ports

EXTERNAL GROUP
Academia
Regulatory agencies
ANVISA
Trade and industry associations
Authorities
Community impacted by the port operation
Local communities
Councils
Inspection entities
Industry's Federation

State government
Federal government
Local government
Press
Investors
Media
Ministry of Infrastructure
Public ministry
Residents
NGOs
Consenting bodies
Control bodies
Federal public bodies
Regulatory bodies
Native and traditional peoples
National Secretariat of Ports and Waterway Transport
ANTAQ
State Secretariats
Unions
Civil society
State Audit Court

Source: The Authors of this Guide, from Sustainability Reports and Integrated Reports of Public Ports.

9

MATERIAL ISSUES

This chapter covers three topics. The first one presents the concept of material themes and the last two topics present the mapping of material themes resulting from the analysis of the self-declaration of port organizations in their Sustainability Reports and Integrated Reports. The chapter is divided into Public Ports and Private Port Terminals as we understand that the themes are distinct and have specific requirements for each type of port facility.

Conceptualizing and Classifying Material Themes

Material issues are defined as "issues representing the organization's most significant impacts on the economy, the environment, and people, including impacts on their human rights" (GRI, 2022, p. 19).

These themes are closely tied with the stakeholders and reflect a new positioning of port organizations that recognizes the requirement of incorporating their interests and expectations in the organizational strategic planning. This does not mean that economic, competitive, and profitability criteria are no longer important or would play a minor role, but rather that port organizations must embrace the concept of stakeholder capitalism.

TIP

Organizations can be supported by the World Bank document "Stakeholders for a Cohesive and Sustainable World: The Role of Lighthouse Projects."

Material issues' incorporation into management processes could have a significant impact on the productivity of port operations. It not only

could reduce conflicts with stakeholders but also minimize operations problems or interruptions, while improves employee and external stakeholder engagement, enhancing the ability to attract and retain the best talent, and the organization's image in society.

TIP

In order to map and disclose the material topics, we suggest reviewing our mapping of the topics and applying the GRI standards (Section 2.2 of GRI Standard 1: Fundamentals 2021 and Section 1 of GRI Standard 3: Material Topics 2021).

The material themes were classified according to the ESG dimensions: Environmental, Social, and Governance. However, some themes have a cross-cutting impact on more than one dimension. Therefore, two new categories were created: Interdisciplinary, and Business Operations and Strategy. The latter addresses issues more related to the operational aspects of port and to its strategic planning, although it does not imply that these material issues are unrelated to ESG dimensions. This classification adopted by the technical team, as follows:

- **1.** Environmental;
- **2.** Sociais;
- **3.** Governance;
- **4.** Interdisciplinary;
- **5.** Business, Operations and Strategy.

TIP

The GRI - Global Reporting Initiative, the SSB - International Sustainability Standards Board, and the European Commission (Executive Body of the European Union) recommend adopting the concept of Dual Materiality. This concept involves analyzing and disclosing the impact of climate on organizations' operations, primarily directed towards groups and investors, and the impact of organizations' operations on the environment, primarily directed towards other stakeholders. Organizations that are more advanced in Sustainability must continue to follow this trend and adopt the concept of dual materiality.

TIP

The World Economic Forum defend the adoption of the concept of Dynamic Materiality, which argues that material issues cannot be addressed solely during the diagnosis and planning of sustainability or when preparing a Sustainability Report. The COVID-19 pandemic and current wars have highlighted the importance of updating material topics, which should not be treated as static, only to be used for report publication. Instead, it should be part of a living document to be utilized in various instances and processes within the organization and must be continuously updated.


TENO

Material Issues of Private Port Terminals

The material themes of the Private Port Terminals were mapped based on the self-declarations made by the port organizations in their Sustainability Reports and Integrated Reports. This Guide's technical team did not make any changes or adaptations to the material issues identified.

Regarding the TUPs, we noticed a greater concern for social issues among their stakeholders, with the largest number of issues, closely followed, as shown in Table 31.

• Table 31 - Material issue - environmental - private port terminals

ENVIRONMENTAL
Environmental compensation actions
Agrochemicals
Water
Dams
Biodiversity
Socio-environmental certifications
Climate
Environmental compliance
Biodiversity conservation
Zero deforestation
Eco-efficiency
Energy efficiency
Effluents
Emission of Greenhouse Gases (GHGs)
Energy
Management and mitigation of impacts on biodiversity
Natural resource management and resilient food system

Environmental impacts
Environmental licensing in operations
Hazardous Material
Environment
Mitigation of climate change
Noise monitoring
Climate change
New agricultural practices
Environmental Footprint
Prevention of accidents and leakage
Air quality and pollutants
Scrap recycling
Tailings: Disposal management and mitigation of impacts caused by ruptures
Waste
Climate resilience and the transition to a low-carbon economy
Use of the soil
Reliable user of air, land and water
Responsible energy user, helping to create a low-carbon future

Source: Sustainability Reports and Integrated Reports of Private Port Terminals.

• Table 32 - Material - Social Issue - Private Port Terminals

SOCIAL
Support for the local community
Talent attraction and retention
Employees attracting, retaining and developing
Active and transparent communication
Communities

Health and safety culture
Culture and people management
Professional development
Human development
Local development, including emergency support to municipalities
Socioeconomic development and relationship with communities
Development of local communities
Human rights
Diversity
Job
Communities engagement and participation
Equity
Suppliers
Employment and income generation
Economic impact
Socioeconomic and environmental impact on surrounding communities
Inclusion
People
Promoting diversity and defending human rights
Promoting a diverse and inclusive work environment
People protection
Relationship with the community
Relationship with customers
Relationship with interested parties
Labor and union relations
Health, safety and well-being of professionals
Safe, healthy work and quality of life for our employees
Training and Qualification
Appreciation of interested parties

Source: Sustainability Reports and Integrated Reports of Private Port Terminals.

• Table 33 - Material issue - governance - private port terminals

GOVERNANCE
Regulatory environment, market opening and competition
Commitment to Integrity
Ethical and integrate conduct
Compliance with laws and regulations
External control
Ethics and corporate governance
Ethics and integrity
Ethics and transparency
Business ethics and anti-corruption measures
Ethics, compliance and transparency
Corporate governance
Governance and compliance
Governance and conformity
Governance and integrity
Integrity, ethics and anti-corruption measures
Ombudsman
Positioning, commitments and regulatory environment
Safety and commitment to life
Transparency and ethics
Supply chain transparency

Source: Sustainability Reports and Integrated Reports of Private Port Terminals.

• Table 34 - Material issue - interdisciplinary - private port terminals

INTERDISCIPLINARY
Safety, health and environment actions
Facing the pandemic
Sustainable development
Territorial development
Risk management
The ability to Innovate
Innovation
Innovability
Innovation and digital transformation
Innovation in agricultural practices
Innovation in processes and products
Territorial and fluvial framework
Origin and impact of transported product
Safe, sustainable and responsible production
Emergency awareness and response
Pipeline protection
Product quality and safety
Food quality and safety
Dam safety
Safety and quality of operations
Property security
Technology

Source: Sustainability Reports and Integrated Reports of Private Port Terminals

• Table 35 - Material Issue - Business, Operations and Strategy - Private Port Terminals

BUSINESS, OPERATIONS AND STRATEGY
Supply chain
Port capacity for growth and investment
Operational performance
Business development with long-term value creation
Port complex economic development
Mine decommissioning and future use
Focus on customers' needs
Investments in operations
New sea route lines
Operations productivity
Organizational restructuring
Economic and financial resilience
Economic and operational result
Operations security
Economic sustainability
Financial sustainability
Sea transport

Source: Sustainability Reports and Integrated Reports of Private Port Terminals.

Material Issues of Public Ports

The mapping of material issues for Public Ports was also based on self-declarations made by port organizations in their Sustainability Reports and Integrated Reports. The technical team of the Guide did not make any changes or adaptations on them.

In the Public Ports, as noticed, the stakeholders were more concerned about the social theme, and a greater number of issues were identified, close followed by issues related to theme Business, Operations, as presented in Table 36.

• Table 36 - Material issue - environmental - public ports

ENVIRONMENTAL
Environmental accidents
Water
Biodiversity
Human rights
Effluents
Energy
Waste and effluent management
Protection of natural resources and biodiversity
Waste

Source: Sustainability Reports and Integrated Reports of Public Ports.

• Table 37 - Material issue - social - public ports

SOCIAL
Diversity as a strength
Training
Local communities

Contribution to the training of professionals for the labor market
Income generation
Human resources management
Maternity and paternity leaves
Trained people generating results
Career, positions and salaries planning
Local recruitment
Port-city relationship and maintenance of a good dialogue with stakeholders
Relationship with customers
Workers' representation
Workers' health and safety
Employees' health and safety

Source: Sustainability Reports and Integrated Reports of Public Ports.

• Table 38 - Material issue - governance - public ports

GOVERNANCE
Regulatory environment
Corporate governance
Anti-corruption actions
Ethical governance and anti-corruption confrontation
Governance, innovation and business performance
Institutionalization of a corporate governance culture
Tax regularity

Source: Public Ports Sustainability Reports.

• Table 39 - Material issue - interdisciplinary - public ports

INTERDISCIPLINARY
Sustainability
Innovation
Operations safety

Source: Sustainability Reports and Integrated Reports of Public Ports.

• Table 40 - Material issue - business, operations and strategy - public ports

BUSINESS, OPERATIONS AND STRATEGY
Revenue increasing
Project portfolio development
Resource contingency
Economic Performance
Development of delegated ports
Financial Strategy
Indirect economic impact
Inter-modality and connectivity between maritime, rail and land traffic
New business
Company sustainability
Business performance
Commodity pricing
Customs clearance
Exchange variation

Source: Sustainability Reports and Integrated Reports of Public Ports.

10

SDG

In the evolution of the sustainability concept and application, several milestones have been observed, including philanthropy, Sustainable Development, Millennium Development Goals, Triple Bottom Line, Sustainable Development Goals (SDGs), and ESG.

In this sense, the SDGs represent a significant framework and milestone for society's commitment to sustainability, and, for sure, including port organizations, which have a wide range of choices in the sustainability universe and the SDGs can serve as a source of inspiration and as a basis for strategic planning and institutionalizing sustainability.

In this chapter, we present the SDG's conceptualization and the mapping of actions carried out in ports related to them.

The mapping of actions was based on documentary analysis of Sustainability Reports, Integrated Reports, Management Reports, and specific reports of activities related to the SDGs. Additionally, it was conducted electronic research.

To present the analyzed data on the SDGs, we used the ESG dimensions and we divided them into thematic categories following the methodology developed by the International Association of Ports and Harbors (IAPH), as presented in the World Ports Sustainability Report 2020.

What are SDGs

The document "Transforming our world: the 2030 Agenda for sustainable development" was published at the UN summit conference in New York in September 2015, presenting an international action plan based on the Millennium Development Goals, as follows:

- **A)** 17 SDGs;
- **B)** 169 global action goals to achieve by 2030;
- **C)** Declaration of the vision, principles and commitments in

the 2030 Agenda;

» **D)** Ways of monitoring and evaluating the 2030 Agenda;

» **E)** Means necessary to implement it (UN, 2015).

The 2030 Agenda was unanimously approved by the 193 UN State Members, who committed themselves to "leave no one behind," referring to the world's poorest (ROMA, 2019). Machado Filho (2016, p. 104) emphasized "It is crucial to achieve the objectives and goals by all nations, people, and segments of society by 2030'.

The 2030 Agenda is structured IN five dimensions: People, Planet, Prosperity, Peace, and Partnership, as illustrated in Figure 2.

- **Figure 2 - The 5 P's of the 2030 Agenda**

Source: ODS National Movement (2021).

These dimensions defined specific characteristics and objectives, as presented below.

•**People**: eradicating poverty and hunger in all forms and ensure dignity and equality for all; •**Planet**: pprotect our planet natural resources and climate for future generations; •**Prosperity**: ensure a prosperous and fulfilling lives in harmony with nature; •**Peace**: : foster peaceful, just, and inclusive societies; •**Partnerships**: implement the agenda through a solid global partnership (UN, 2015).

The SDGs integrated into the 2030 Agenda are interdependent and systemic, and should be institutionalized through the organization strategic planning (MACHADO FILHO, 2016). In this sense, Silva (2018, p. 663) adds that:

> ***It** is difficult to analyze the SDGs independently of one another, as they are all correlated and are based on the principle of the indivisibility of human rights, which conceives the idea that no human right can be fully implemented without other rights also being complied. This indivisibility suggests a relationship that cannot be separated without losing its meaning, or its functionality.*

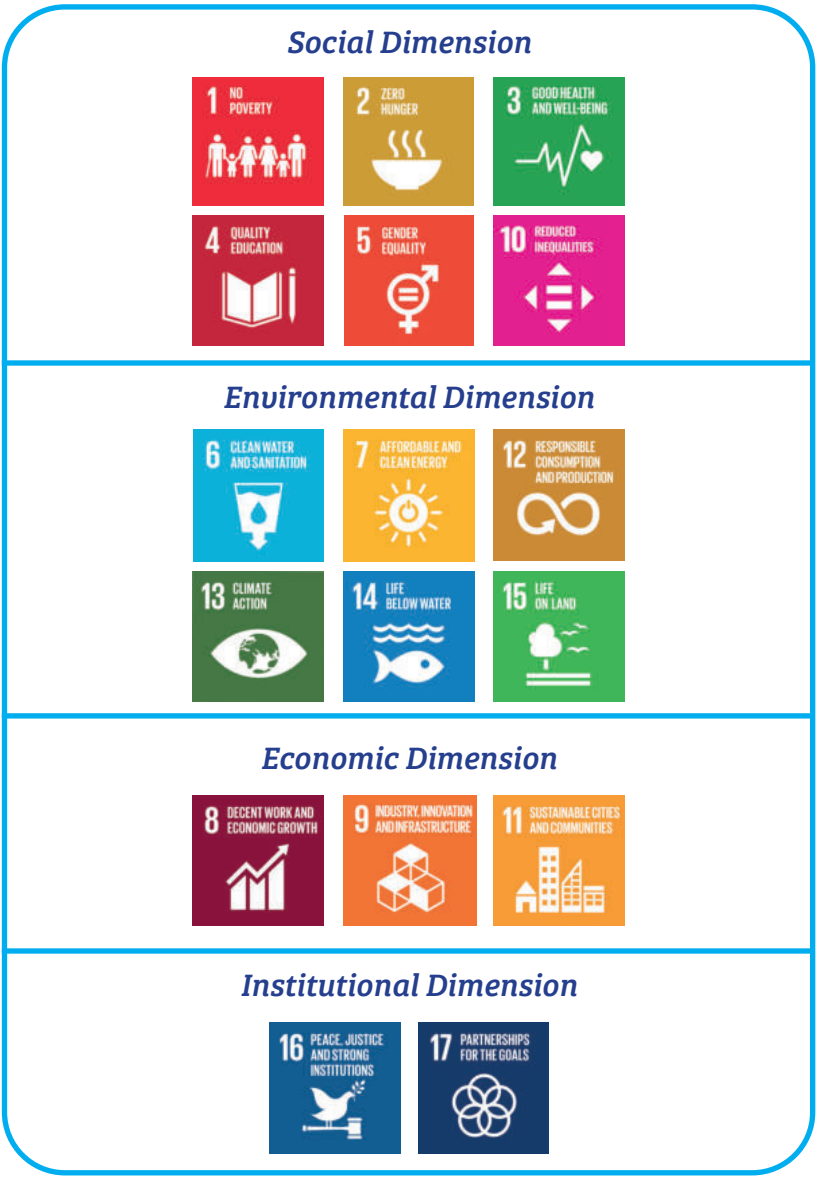
The Figure 3 presents the 17 Sustainable Development Goals.

- **Figure 3 - Goals of sustainable development**

Source: UN (2015).

The SDGs also encompass the three dimensions of sustainable development: economic, social, and environmental, with the addition of a fourth pillar, the institutional dimension, which is more closely related to partnerships and the means to achieve them. Each of these dimensions has its own specific objectives.

- **Figure 4 - Dimensions of the SDGs**



Source: Brazil 2017).

TIP

To a better understanding of the SDGs, we recommend to study the information available at https://www.pactoglobal.org.br/ods.

To a deeper understanding of the SDGs in the port sector, we recommend to review the World Ports Sustainability Report 2020 published by the International Association of Ports and Harbors (IAPH).

No organization can make a significant contribution covering all of the SDGs. It is important to choose the ones that are most relevant to your performance, based on the material issues raised by stakeholders, and prioritizing them accordingly.

To consider the SDGs in an organization's strategic planning, we recommend to begin with a mapping of current and ongoing environmental and social projects and to analyze their correlation with the SDGs. This will help to identify how the organization could contribute to achieving one or more of the objectives.

In a second step, when the organization has reached a more advanced stage of sustainability maturity, a prospective analysis should be carried out to determine which new environmental and social projects can be undertaken, focusing on themes as the stakeholders' capacity, purpose, and needs.

In the next three sections, we present a mapping of the work carried out by Brazilian ports using the SDG framework. The mapping was done by surveying the ports in electronic form, examining specific reports on the application of the SDGs, and reviewing information on the

SDGs contained in Sustainability Reports and Integrated Reports. The results are categorized by ESG dimensions.

SDGs and the Environmental Dimension

In the environmental dimension, the Brazilian ports mapping showed that the most commonly actions were related to SDG 7 - Affordable and Clean Energy, SDG 13 - Climate Action, and SDG 14 - Life Below Water.

The thematic categories with the highest number of actions were air and water pollution, as well as renewable energy.

• Table 41 - SDG and the environmental dimension

Categories	SDG	Actions
Global warming	SDG 9 and 13 - Industry, Innovation and Infrastructure / Climate Change	Preventing and Adapting Port Infrastructure to face Climate Change causes
Biodiversity	SDG 3 - Health and Well-Being	Protecting habitats and biodiversity in the port area.
	SDG 14 - Life below Water	Promoting sustainable fishing activities.
		Supporting research on the sustainable use of marine resources.
		Supporting local projects in the development of nature and biodiversity.
	SDG 15 - Life on Land	Recovering and protecting nature and biodiversity in the port surroundings.
		Balancing the development of the port area with ecosystems.
		Restoring ecosystems and making the port accessible and attractive to nearby urban areas people.

Deforestation	SDG 14 - Life below Water	Coastal and estuarine protection in the areas' natural habitats and ecosystems.
	SDG 15 - Life on Land	Preventing deforestation by utilizing/acquiring sustainable wood and paper certificated.
Renewable energy	SDG 7 and 13 - Affordable and Clean Energy/Climate Change	Producing, acquiring, and locally supplying of renewable energy.
		Supplying renewable energy from onshore sources.
		Providing cleaner marine fuels in a safe and efficient manner.
		Investing in energy-efficient port equipment.
		Optimizing port operations and processes, including logistics and scales.
	SDG 7 and 13 - Affordable and Clean Energy/Climate Change	Encouraging third parties such as ships, tenants, and operators to adopt clean energy initiatives through incentives and contractual clauses.
	SDG 13 - Climate Change	Improving the energy efficiency of the port's operations, processes, and services.
		Supporting research and development in clean energy technology.

Water shortage	SDG 6 - Clean Water and Sanitation	Minimizing and optimizing water consumption in the port area.
		Rainwater harvesting for port usage
Waste Management	SDG 12 - Responsible Consumption and Production	Sustainable management of natural resources, chemicals, and waste.
		Encouraging the circular economy and promoting industrial reuse.
		Reducing food waste, as well as minimizing loss in the production and supply chain.
Carbon bond	SDG 13 - Climate Change	Actions to reduce carbon and greenhouse gas emissions in the port area.
		Providing services to reduce greenhouse gas emissions in marine and inland supply chain operations.
	SDG 14 - Life below Water	Reducing emissions of CO2, SO2, NOx, and NH3 from port-related activities to prevent ocean acidification.
Other actions	SDG 1 - No Poverty	Establishing requirements for sustainable procurement.
	SDG 9 - Industry, Innovation and Infrastructure	Infrastructure that minimizes the environmental impact of port activities.
	SDG 15 - Life on Land	Providing environmental education programs for employees.

Air and water pollution	SDG 3 and 15 – Good Health and Well-Being/Life on Land	Minimizing the environmental impact of port operations, such as air pollution, water pollution, and noise, and ports and urban areas ecology.
	SDG 3 – Good Health and Well-Being	Initiatives for sustainable and safe mobility, as well as projects aimed at reducing traffic.
	SDG 6 - Clean Water and Sanitation	Protecting water-related ecosystems such as estuaries, wetlands, and mangroves in the around the port area.
		Projects that protect freshwater resources, such as those that address wastewater and stormwater.
	SDG 14 - Life below Water	Measures to prevent waste from ending up in the oceans include reception facilities, garbage collection, and clean-up actions.
		Minimizing water pollution by implementing proper wastewater treatment facilities.
		Minimizing disturbing factors, such as underwater noise, for marine mammals.

Source: Research data from public and private ports.

SDGs and the Social Dimension

In the social dimension, the mapping of Brazilian ports showed that the most frequently executed actions are related to SDGs 4 - Quality Education, 5 - Gender Equality, 8 - Decent Work and Economic Growth, 9 - Industry, Innovation, and Infrastructure, 10 – Reduced Inequalities, and 11 - Sustainable Cities and Communities.

The thematic categories with the highest number of actions were community engagement and workforce diversity.

- **Table 42 - SDG and the social dimension**

Categories	ODS	Actions
Work conditions	SDG 5 - Gender Equality	Gender-neutral hiring and compensation policies.
		Gender balance in port's operation and in management positions.
	SDG 6 - Clean Water and Sanitation	Providing clean and potable water in sanitary facilities for port staff and visitors, such as ship crew and truck drivers.
	SDG 16 - Peace, Justice and Strong Institutions	Constructive dialogue between employers and employees.

Team diversity	SDG 5 - Gender Equality	Training and hiring more women for positions in port operations.
		Enhancing the work environment to be more appealing to women include separate restrooms, awareness campaigns, and family-friendly policies.
	SDG 8 - Decent Work and Economic Growth	Promotion of employment, which includes opportunities for disadvantaged groups and for the youth.
		Aiming to achieve equality within the port, regardless of gender, origin, creed, or conviction.
	SDG 10 - Reduced Inequalities	Neutral hiring and compensation policies regardless of social background.
		Inclusive port community initiatives, regardless of one's socioeconomic status.
		Achieving economic growth through diversification, innovation, and technological modernization.
		Adapting port infrastructure and processes to meet market demands, such as the operation of larger ships.
Employee engagement	SDG 4 - Quality Education	Competency and talent policy for employees
		Providing training to port professionals through specialized teaching and research institutions.
		Collaboration with other ports for educational and training purposes.
		Encouraging and supporting employees in their lifelong learning journey.

Product quality and economic growth	SDG 8 - Decent Work and Economic Growth	Generating economic growth in a sustainable and environmentally friendly manner.
	SDG 9 - Industry, Innovation and Infrastructure	Investment in infrastructure for all modes of transport to achieve a balanced modal split.
	SDG 12 - Responsible Consumption and Production	Optimizing operations, port processes, and services.
		Optimizing infrastructure and port operations, processes, and digital services.
		Pilot projects, test, and deploy innovative IT technologies.
		Sustainable port development projects.

Relationship with the community	SDG 1 and 11 - No Poverty/Sustainable Cities and Communities	Supporting local social institutions such as schools, orphanages, and NGOs.
		Ensuring economic growth with economic and social impacts on local communities.
		Supporting local communities through social projects aiming sustainable growth.
		Creating synergies with universities for port research and development projects.
	SDG 4 - Quality Education	Collaboration with local schools, universities, and research centers in educational programs, internships, and port visits.
		Providing financial assistance to local communities in need and supporting social projects that promote sustainable growth in neighboring areas.
	SDG 11 - Sustainable Cities and Communities	Minimizing the environmental impact of port operations on the community.
		Disaster recovery planning.
		Community involvement programs.
		Improving health and safety awareness among employees and local communities through training, transparency, and effective communication about potential health and safety risks.
		Improving port security and mitigating security risks.

Security and health	SDG 1 - No Poverty	Establishing a fair minimum wage for port officials and promoting similar practices throughout the port community.
	SDG 3 – Good Health and Well-Being	Raising awareness and taking action against the use of addictive substances such as tobacco, alcohol, and drugs.
	SDG 8 - Decent Work and Economic Growth	Fighting for healthy working conditions and a safe environment for all, taking specific actions related to safety and ergonomics, as well as creating a good work/life balance.
	SDG 11 - Sustainable Cities and Communities	Improving sustainable mobility and reducing congestion for employees, communities, and freight.
	SDG 16 - Peace, Justice and Strong Institutions	Implementation of cyber, commercial, and operational security measures, along with data protection, including personal data.

Source: Research data from public and private ports.

SDGs and the Governance Dimension

In the governance dimension, the mapping of Brazilian ports showed that the most frequently implemented actions were related to SDG 16 – Peace, Justice and Strong Institutions and SDG 17 – Partnerships for the Goals.

The thematic categories with the highest number of actions were corporate governance, business ethics, and relationships with government entities and politicians.

- **Table 43 - SDG and the governance dimension**

Categories	ODS	Actions
Composition of the Executive Board and the Council	SDG 5 - Gender Equality	Promoting women to leadership positions.
Corporate conduct	SDG 1 - No Poverty	Establishing ethical standards throughout the supply chain.
	SDG 9 - Industry, Innovation and Infrastructure	Development of sustainable policies supported by performance indicators.
	SDG 10 - Reduced Inequalities	Commitment and responsibility for applying ethical standards throughout the supply chain.
	SDG 16 - Peace, justice and strong institutions	Good governance practices comprising stakeholder analysis, well-defined measures, and communication.
		Transparent communication both internally and externally.

Business ethics	SDG 8 - Decent work and economic growth	Commitment and responsibility to uphold end-to-end ethical standards in supply chains, including working conditions and human rights in developing countries.
	SDG 10 - Reduced Inequalities	Ethics on investment
	SDG 12 - Responsible consumption and production	Implementing responsible purchasing and sustainable investments in management and development areas.
	SDG 17 - Partnership and Means of Implementation	Collaboration with other ports and stakeholders in logistics chains is essential for joint projects of mutual interest.
		Establishing partnerships within supply chains to ensure the Social and Corporate Responsibility values throughout the supply chain.
Existence of a reporting channel	SDG 16 - Peace, justice and strong institutions	Implementing a 'complaints' hotline.

Relationship with government entities and politicians	SDG 16 - Peace, justice and strong institutions	Encourage open dialogue and collaboration with all stakeholders, including government bodies and local entities.
		Public-private partnerships for financing and implementing sustainability projects.
	SDG 17 - Partnership and Means of Implementation	Collaborative research and development projects, involving port stakeholders, academia, industry, and authorities.
		Partnerships with local communities in port-city relationship initiatives.
		Initiatives to promote peace

Source: Research data from public and private ports.

11

REGULATION

This chapter outlines the primary legislation pertaining to best practices in sustainable management in the port sector.

The research undertaken focused on federal laws and regulations issued by executive bodies of power for the infrastructure segment, amongst others, that operate in the national port sector. It should be noted that the complexity and dynamism of the sector extend beyond this set of laws. Therefore, whenever opportune, one has to search for updates to the legal framework of the sector.

Due to their volume and the objective of this Guide as a resource for ESG management in the port sector, this chapter does not include a list of state and municipal laws. These, for sure, are essential for identifying and complying with local legislation.

The regulations are divided according to the ESG dimensions, and a correlation is made with specific themes and the SDGs.

Environmental Regulation

The environmental legislation gathered is presented regarding the themes: Preservation Areas, Wildlife Protection, Environment, Inclusion, Port City, Sustainability, Water Resources, Environmental Policy, Protection Areas, Environmental Responsibility, Environmental Impact, Governance, Coastal Policy, Environmental Licensing, Inspection, Punishments, Conservation Units, Carbon Credits, Greenhouse Effects, Environmental Management, Renewable Energy, National Solid Waste Policy, Cooperation, and Dredging.

IDENTIFICATION	**LAW No. 4771, OF SEPTEMBER 15, 1965 – PROTECTION OF FORESTS.**
Type - Kind	Federal law
Summary – Menu	The protection of native forests is determined by defining areas of permanent preservation where conservation of vegetation is mandatory. These areas include a strip of land ranging from 10 to 500 meters on the banks of rivers (depending on the width of the watercourse), on the edge of lakes and water reservoirs, on the tops of hills, slopes with a slope greater than 45°, and places above 1,800 meters in altitude. Additionally, rural properties in the Southeast region of the country must preserve 20% of the tree cover, which must be recorded in the property registry. Deforestation is prohibited even if the area is sold or divided. The law criminalized the sanctions that existed prior to the Environmental Crimes Law of 1998. The Fauna Law (Law 5197 – 1967) is also applicable.
ESG dimension	Environmental
Theme	Environment – Preservation Areas
SDG	11 - 15

IDENTIFICATION	**LAW No. 5197, OF JANUARY 3, 1967.**
Type - Kind	Federal law
Summary – Menu	Provides for protection for fauna and makes other necessary arrangements.
ESG dimension	Environmental
Theme	Wildlife protection
SDG	15

IDENTIFICATION	**LAW No. 6766, OF DECEMBER 19, 1979.**
Type - Kind	Federal law
Summary – Menu	Provides for subdivision of urban land.
ESG dimension	Environmental and Social
Theme	Environment - Inclusion – Port City
SDG	11 – 15

IDENTIFICATION	**LAW No. 9433, OF JANUARY, 8, 1997 - NATIONAL POLICY ON WATER RESOURCES.**
Type - Kind	Federal law
Summary – Menu	Establishes the Policy and National System of Water Resources, and the prposes that the intervention in public waters requires authorization from the competent body. A charge for the use of water is also established due to its limited natural resource status and high economic value.
ESG dimension	Environmental
Theme	Environment – Sustainability – Water resources
SDG	3 – 6 – 12

IDENTIFICATION	**LAW No. 6938, OF AUGUST 31, 1981 - NATIONAL ENVIRONMENTAL POLICY.**
Type - Kind	Federal law
Summary – Menu	Provides for the National Environmental Policy, including its purposes and mechanisms for formulation and application, as well as other provisions. It was the first federal law to address the environment comprehensively.
ESG dimension	Environmental
Theme	Environmental policy
SDG	3 - 13 - 15

IDENTIFICATION	**LAW No. 6902, OF APRIL 27, 1981 - ENVIRONMENTAL PROTECTION AREA.**
Type - Kind	Federal law
Summary – Menu	Provides for the establishment of Ecological Stations, Environmental Protection Areas, and other related measures.
ESG dimension	Environmental
Theme	Environment – Sustainability – Protection Areas
SDG	15

IDENTIFICATION	**LAW No. 7347 OF JULY 24, 1985 – PUBLIC CIVIL ACTION.**
Type - Kind	Federal law
Summary – Menu	Disciplines the public civil action responsibility for damage caused to the environment, consumers, goods and rights of artistic, aesthetic, historical, tourist, and landscape value.
ESG dimension	Environmental
Theme	Environment - Environmental responsibility
SDG	3 -10 – 16

IDENTIFICATION	**CONAMA RESOLUTION No. 01 OF JANUARY 23, 1986.**
Type - Kind	Resolution issued by Conama - National Council for the Environment - Ministry of the Environment
Summary – Menu	An environmental impact is defined as any alteration in the physical, chemical, or biological characteristics of the environment caused by human activities and results in the release of matter or energy, affecting: I - The health, safety, and well-being of the population; II - social and economic activities; III - the biota; IV - the aesthetic and sanitary conditions of the environment; IV - the quality of environmental resources.
ESG dimension	Environmental
Theme	Environment - Sustainability - Environmental impact
SDG	3 – 13 – 14 – 15

IDENTIFICATION	**LAW No. 7661, OF MAY 16, 1988 - COASTAL MANAGEMENT.**
Type - Kind	Federal law
Summary – Menu	This law, regulated by Resolution No. 01 of the Interministerial Commission for Sea Resources on 12/21/1990, provides the guidelines for developing the National Coastal Management Plan. The coastal management must compliance with the rules of the National Council for the Environment (CONAMA).
ESG dimension	Environmental
Theme	Governance - Environment - Coastal Policy
SDG	11

IDENTIFICATION	**LAW No. 7735, OF FEBRUARY 22, 1989 – CREATION OF IBAMA.**
Type - Kind	Federal law
Summary – Menu	Creates the Brazilian Institute for the Environment and Renewable Natural Resources and implements additional measures.
ESG dimension	Environmental
Theme	Environmental Governance
SDG	14 - 17

IDENTIFICATION	**LAW No. 8171, OF JANUARY 17, 1991 - AGRICULTURAL POLICY.**
Type - Kind	Federal law
Summary – Menu	Provides agricultural policy.
ESG dimension	Environmental and Governance
Theme	Governance – Environment – Politics
ODS	1 – 2

IDENTIFICATION	**CONAMA RESOLUTION No. 237/1997 - ENVIRONMENTAL LICENSING.**
Type - Kind	Resolution issued by Conama - National Council for the Environment - Ministry of the Environment
Summary – Menu	The environmental license is the document that facilitates the planning, implementation, and execution of any activity that utilizes natural resources, whether it is considered effectively or potentially polluting, and may cause environmental degradation in any form. This includes the prior Environmental License, Installation Environmental License, Operation Environmental License, and Correction License.
ESG dimension	Environmental
Theme	Environment - Environmental Licensing - Sustainability
SDG	13 – 14 – 15

IDENTIFICATION	**LAW No. 9605, OF FEBRUARY 12, 1998 - ENVIRONMENTAL CRIME LAW.**
Type - Kind	Federal law
Summary – Menu	Provides criminal and administrative sanctions for conduct and activities that are harmful to the environment, and includes other provisions.
ESG dimension	Environmental and Governance
Theme	Governance - Environment - Inspection - Punishments
SDG	16

IDENTIFICAÇÃO	**LEI Nº 9.605/98 – CRIMES AMBIENTAIS**
Tipo – Espécie	Lei Federal
Resumo - Ementa	Dispõe sobre as sanções penais e administrativas derivadas de condutas e atividades lesivas ao Meio Ambiente.
Dimensão ESG	Ambiental
Tema	Meio Ambiente – Fiscalização ambiental
SDG	16

IDENTIFICATION	**LAW No. 9985 OF JULY 18, 2000 - NATIONAL SYSTEM OF NATURE CONSERVATION UNITS.**
Type - Kind	Federal law
Summary – Menu	Regulates the Article 225, § 1, items I, II, III, and VII of the Federal Constitution, along with other measures and provides the National System of Nature Conservation Units.
ESG dimension	Environmental
Theme	Environment - Sustainability - Conservation Units
SDG	15

IDENTIFICATION	**DECREE No. 2652, OF JULY 1, 1998.**
Type - Kind	Presidential Decree
Summary – Menu	Enacts the United Nations Framework Convention on Climate Change, signed in New York on May 9, 1992.
ESG dimension	Environmental
Theme	Environment – Sustainability - Carbon credit – Greenhouse effect
SDG	13 – 3

IDENTIFICATION	**LAW No. 9966, "MARPOL", OF APRIL 28, 2000.**
Type - Kind	Federal law
Summary – Menu	Provides the prevention, control, and inspection of pollution resulting from the release of oil and other harmful or dangerous substances in waters under national jurisdiction.
ESG dimension	Environmental
Theme	Sustainability - Environment - Inspection
SDG	6 – 13 – 14

IDENTIFICATION	**CONAMA RESOLUTION No. 306, OF JULY 5, 2002.**
Type - Kind	Resolution issued by Conama - National Council for the Environment - Ministry of the Environment
Summary – Menu	Sets out the minimum requirements for evaluating the Environmental Management and Control System in organized ports and port facilities. It also outlines the terms of reference and procedures for conducting environmental audits.
ESG dimension	Environmental
Theme	Environmental management
SDG	9

IDENTIFICATION	**DECREE No. 4871, OF NOVEMBER 6, 2003.**
Type - Kind	Federal law
Summary – Menu	Provides the creation of Area Plans aimed at facing oil pollution in waters within national jurisdiction, as well as other related measures.
ESG dimension	Environmental
Theme	Environmental Management - Area Plan
SDG	14

IDENTIFICATION	**CONAMA RESOLUTION No. 357, OF MARCH 17, 2005.**
Type - Kind	Resolution issued by Conama - National Council for the Environment - Ministry of the Environment
Summary – Menu	Provides guidelines for classifying bodies of water and establishes environmental standards for their classification. It also sets conditions and standards for the release of effluents and other measures.
ESG dimension	Environmental
Theme	Environment - Renewable Energy
SDG	6 – 13 – 14

IDENTIFICATION	**CONAMA RESOLUTION No. 398, OF JUNE 11, 2008.**
Type - Kind	Resolution issued by Conama - National Council for the Environment - Ministry of the Environment
Summary – Menu	Outlines the minimum requirements for the content of an Individual Emergency Plan for oil pollution incidents in waters under national jurisdiction, covering incidents originated in organized ports, port facilities, terminals, pipelines, land probes, platforms and their support facilities, refineries, shipyards, marinas, nautical clubs, and similar facilities.
ESG dimension	Environmental
Theme	Environment
SDG	11 - 14

IDENTIFICATION	**LAW No. 12187, OF DECEMBER 29, 2009.**
Type - Kind	Federal law
Summary – Menu	Provides the National Policy on Climate Change (PNMC) and additional measures.
ESG dimension	Environmental
Theme	Environment – Sustainability – carbon credit – greenhouse effect
SDG	3 – 13

IDENTIFICATION	**LAW No. 12114, OF DECEMBER 9, 2009.**
Type - Kind	Federal law
Summary – Menu	Establishes the National Fund for Climate Change and modifies articles 6 and 50 of Law No. 9478, August 6, 1997, along with other relevant provisions.
ESG dimension	Environmental
Theme	Environment – Sustainability - Carbon credit – Greenhouse effect
SDG	3 – 13

IDENTIFICATION	**LAW No. 12305, OF AUGUST 2, 2010 - NATIONAL SOLID WASTE POLICY (PNRS).**
Type - Kind	Federal law
Summary – Menu	Provides the National Solid Waste Policy, amends Law No. 9605 of February 12, 1998, and includes other measures. It sets forth principles, objectives, instruments, and guidelines for the integrated management and handling of solid waste, including hazardous waste. Additionally, it outlines the responsibilities of both generators and public authorities.
ESG dimension	Environmental
Theme	Environment - Sustainability - National Solid Waste Policy
SDG	13 – 14 – 15

IDENTIFICATION	**COMPLEMENTARY LAW No. 140, OF DECEMBER 8, 2011.**
Type - Kind	Federal law
Summary – Menu	Addresses various aspects of environmental licenses and establishes regulations for collaboration between the Union, States, Federal District, and Municipalities in administrative actions related to the protection of significant natural landscapes, environmental protection, pollution control, and preservation of forests, fauna, and flora. Additionally, it modifies Law No. 6938 from August 31, 1981.
ESG dimension	Environmental and Governance
Theme	Governance - Environment - Cooperation between entities
SDG	9

IDENTIFICATION	**CONAMA RESOLUTION No. 430, OF MAY 13, 2011.**
Type - Kind	Resolution issued by Conama - National Council for the Environment - Ministry of the Environment
Summary – Menu	Outlines the conditions, parameters, standards, and guidelines for managing the discharge of effluents into bodies of water. It partially amends and complements Resolution No. 357, issued by the National Council for the Environment (CONAMA) on March 17, 2005. Provides parameters for the release of effluents containing inorganic and organic substances, in accordance with existing legislation. The premise is to monitor the conditions established by technological advancements in treatment, with a focus on establishing new conditions and standards for the sanitation sector in accordance to the government's sanitation policy and technologies and with current environmental legislation.
ESG dimension	Environmental
Theme	Environment – Renewable Energy
SDG	3 – 6 – 12

IDENTIFICATION	**ORDINANCE No. 424, OF OCTOBER 26, 2011.**
Type - Kind	Ordinance issued by the Ministry of the Environment
Summary – Menu	Provides that the environmental licensing serves as a public attestation that the operator possesses the necessary capacity to ensure that their activities are being conducted in accordance with environmental legislation, while also complying with the environmental quality of natural resources and their sustainability.
ESG dimension	Environmental
Theme	Environment - Sustainability
SDG	9 – 15 – 17

IDENTIFICATION	**LAW No. 12651, OF MAY 25, 2012 – NEW BRAZILIAN FOREST CODE.**
Type - Kind	Federal law
Summary – Menu	Provides to protect native vegetation measures and makes amendments to Laws 6938 of August 31, 1981; 9393 of December 19, 1996, and 11428 of December 22, 2006. Additionally, it revokes Laws 4771 of September 15, 1965, and 7754 of April 14, 1989, while also including other provisions.
ESG dimension	Environmental
Theme	Environment - Sustainability - Environmental preservation
SDG	15

IDENTIFICATION	**CONAMA RESOLUTION No. 454, OF NOVEMBER 01, 2012.**
Type - Kind	Resolution issued by Conama - National Council for the Environment - Ministry of the Environment
Summary – Menu	Establishes general guidelines and reference procedures for managing material to be dredged in waters under national jurisdiction.
ESG dimension	Environmental
Theme	Dredging
SDG	9

IDENTIFICATION	**DECREE No. 9172, OF OCTOBER 17, 2017.**
Type - Kind	Presidential Decree
Summary – Menu	Provides the National Emissions Registration System – Sirene, establishing the instruments of the National Policy on Climate Change, as referred to in item XIII of the caput of art. 6 of Law No. 12187, of December 29, 2009. Additionally, it amends Decree No. 7390, of December 9, 2010, which regulates the aforementioned Policy.
ESG dimension	Environmental
Theme	Environment – Sustainability - Carbon credit – Greenhouse effect
SDG	3 – 7 – 13 – 15

IDENTIFICATION	**CONAMA RESOLUTION No. 491, OF NOVEMBER 19, 2018.**
Type - Kind	Resolution issued by Conama - National Council for the Environment - Ministry of the Environment
Summary – Menu	Provides air quality standards.
ESG dimension	Environmental
Theme	Environment – Greenhouse Effect – Carbon Credit
SDG	11 - 13

IDENTIFICATION	**DECREE No. 9578, OF NOVEMBER 22, 2018.**
Type - Kind	Presidential Decree
Summary – Menu	Consolidates normative acts issued by the Federal Executive Government that provides the National Fund on Climate Change, as outlined in Law No. 12114 of December 9, 2009, and the National Policy on Climate Change outlined by Law No. 12187 of December 29, 2009.
ESG dimension	Environmental
Theme	Environment – Sustainability - Carbon credit – Greenhouse effect
SDG	3 – 7 – 13

IDENTIFICATION	**DECREE No. 10845, OF OCTOBER 25, 2021.**
Type - Kind	Presidential Decree
Summary – Menu	Provides the Inter-ministerial Committee on Climate Change and Green Growth.
ESG dimension	Environmental
Theme	Environment – Sustainability - Carbon credit – Greenhouse effect
SDG	3 – 7 – 13 – 15

IDENTIFICATION	**DECREE No. 11075, OF MAY 19, 2022.**
Type - Kind	Presidential Decree
Summary – Menu	Provides the procedures for preparing Sector Plans to Mitigate Climate Change, establishes the National System for Reducing Greenhouse Gas Emissions, and makes amendments to Decree No. 11003, of March 21, 2022.
ESG dimension	Environmental
Theme	Environment – Sustainability - Carbon credit – Greenhouse effect
SDG	3 – 7 – 13

IDENTIFICATION	**DECREE No. 11003, OF MARCH 21, 2022.**
Type - Kind	Presidential Decree
Summary – Menu	Provides the Federal Strategy for Incentivizing the Sustainable Use of Biogas and Biomethane.
ESG dimension	Environmental
Theme	Environment – Sustainability - Carbon credit – Greenhouse effect
SDG	3 – 7 – 13

Social Regulation

The social legislation identified is related to the following themes: Port-City; Human Rights; Governance; Corporate Social Responsibility and Equity.

IDENTIFICATION	**LAW No. 6803, OF JULY 1980 - INDUSTRIAL ZONING.**
Type - Kind	Federal law
Summary – Menu	Provides basic guidelines for industrial zoning in pollution critical areas and includes other provisions.
ESG dimension	Social
Theme	Port City
SDG	8 – 9

IDENTIFICATION	**LAW No. 8069, OF JULY 13, 1990 - CHILD AND ADOLESCENT STATUTE.**
Type - Kind	Federal law
Summary – Menu	Provides the Statute of Children and Adolescents, as well as other measures.
ESG dimension	Social
Theme	Human rights
SDG	16

IDENTIFICATION	**DECREE No. 3298, OF NOVEMBER 20, 1999.**
Type - Kind	Presidential Decree
Summary – Menu	Regulates the Law No. 7853, of October 24, 1989 and establishes the National Policy for the Integration of Persons with Disabilities. It also consolidates protection standards and other provisions.
ESG dimension	Social
Theme	Human rights
SDG	10

IDENTIFICATION	**LAW No. 12852, OF AUGUST 5, 2013.**
Type - Kind	Federal law
Summary - Menu	Provides the Youth Statute, ensuring the young people rights, as well as outlines the principles and guidelines of public youth policies and the National Youth System (SINAJUVE).
ESG dimension	Social

IDENTIFICATION	**LAW No. 12986, OF JUNE 2, 2014.**
Type - Kind	Federal law
Summary – Menu	The Council for the Defense of the Rights of the Human Person is transformed into the National Council for Human Rights – CNDH. The Laws No. 4319 of March 16, 1964, and 5763 of December 15, 1971 are revoked, and make other arrangements.
ESG dimension	Social
Theme	Human rights
SDG	16

IDENTIFICATION	**LAW No. 13146, OF JULY 6, 2015 – STATUTE OF PERSON WITH DISABILITIES.**
Type - Kind	Federal law
Summary - Menu	Establishes the Brazilian Law for the Inclusion of Persons with Disabilities.
ESG dimension	Social
Theme	Human rights
SDG	10

IDENTIFICATION	**JOINT ACT TST.CSJT.GP No. 8, OF MARCH 21, 2019.**
Type - Kind	Document issued by the Superior Labor Court
Summary - Menu	Provides guidelines for preventing and combating moral harassment in the Superior Labor Court and the Superior Council of Labor Justice.
ESG dimension	Social
Theme	Human rights
SDG	5 – 10

IDENTIFICATION	**LAW No. 14047, OF AUGUST 24, 2020.**
Type - Kind	Federal law
Summary - Menu	Provides measures to mitigate the effects of the COVID-19 pandemic in the port and aeronautical sectors, particularly for the removal and compensation of independent workers who are part of risk groups or exhibit symptoms of coronavirus contamination.
ESG dimension	Social and Environmental
Theme	Governance – Human Rights – Corporate Social Responsibility
SDG	3 – 8

IDENTIFICATION	**NR 29 - REGULATORY STANDARD FOR SAFETY AND HEALTH IN PORT WORK. - MTP No. 671, OF MARCH 30, 2022, UPDATED BY ORDINANCE SSST No. 53.**
Type - Kind	Ordinance issued by the Ministry of Labor and Social Security
Summary - Menu	Provides the safety and health guidelines that apply to port workers.
ESG dimension	Social
Theme	Equity - Corporate Social Responsibility - Human Rights
SDG	8

IDENTIFICATION	**MTP No. 671, OF MARCH 30, 2022, UPDATED BY ORDINANCE SSST No. 53.**
Type - Kind	Ordinance issued by the Ministry of Labor and Social Security
Summary - Menu	Provides the safety and health guidelines that apply to port workers.
ESG dimension	Social
Theme	Equity - Corporate Social Responsibility - Human Rights
SDG	8

IDENTIFICATION	**DECLARATION OF HUMAN RIGHTS.**
Type - Kind	International Agreement
Summary - Menu	Adopted and proclaimed by the General Assembly of the United Nations (resolution 217 A III) on December 10, 1948.
ESG dimension	Social
Theme	Human rights
SDG	16

Governance Regulation

The governance legislation identified is related to the following themes: Cultural Heritage; Governance; Compliance; Integrity; Contracts; Port Operation; Transparency; Port Administration; Water Transportation; Security; Regulatory Agencies; Scratches; Corruption; Customs; Conflict of Interest; Exploitation of Port Facilities; Port-City Relationship; Feasibility Studies; and Rail Transport.

IDENTIFICATION	**DECREE LAW No. 25, OF NOVEMBER 30, 1937 – CULTURAL HERITAGE.**
Type - Kind	Federal decree
Summary - Menu	Provides the Protection of the National Historic and Artistic Heritage, which includes national heritage assets of ethnographic and archaeological value, natural monuments, as well as sites and landscapes of significant value due to nature or human intervention. Once an asset is registered as a heritage site, its destruction, demolition, or mutilation is strictly prohibited without prior authorization from the National Historical and Artistic Heritage Service (SPHAN). In case of financial difficulty for the conservation of the asset, SPHAN must be notified in advance. Any harm inflicted upon a listed property is considered an attack on national heritage.
ESG dimension	Social
Theme	Cultural heritage
SDG	11 – 17

IDENTIFICATION	**LAW No. 8429, OF JUNE 2, 1992 – ADMINISTRATIVE IMPROBITY LAW.**
Type - Kind	Federal law
Summary - Menu	Provides the sanctions applicable to public agents in cases of illicit enrichment while exercising their mandate, position, job, or function in the direct, indirect, or foundational public administration. Additionally, it includes other provisions.
ESG dimension	Governance
Theme	Governance - Compliance - Integrity
SDG	16

IDENTIFICATION	**LAW No. 8666, OF JUNE 21, 1993 - BIDDING LAW.**
Type - Kind	Federal law
Summary - Menu	Regulates the Article 37, item XXI, of the Federal Constitution regarding bidding and contracting norms of the Public Administration and includes other provisions.
ESG dimension	Governance
Theme	Governance - Contracts
SDG	9 – 16

IDENTIFICAÇÃO	**DECRETO Nº 1.171, DE 22 DE JUNHO DE 1994**
Tipo – Espécie	Decreto Presidencial
Resumo - Ementa	Dispõe sobre o código de ética profissional do servidor público civil do Poder Executivo Federal.
Dimensão ESG	Governança
Tema	Governança – ***Compliance*** - Integridade
ODS	8 – 16

IDENTIFICATION	**LAW No. 8987, OF FEBRUARY 13, 1995 – CONCESSIONS LAW.**
Type - Kind	Federal law
Summary - Menu	Establishes the concession and permission regime for the provision of public services, as outlined in Article 175 of the Federal Constitution, specifically for port leases.
ESG dimension	Governance
Theme	Governance - Port Operation
SDG	17

IDENTIFICATION	**LAW No. 9074, OF JULY 7, 1995.**
Type - Kind	Federal law
Summary - Menu	Establishes rules for granting and extending service concessions and permissions.
ESG dimension	Governance
Theme	Governance - Transparency - Port Operation
SDG	8 – 17

IDENTIFICATION	**LAW No. 9277, OF MAY 10, 1996.**
Type - Kind	Federal law
Summary - Menu	Allows the Union to delegate the administration and exploitation of federal highways and ports to the municipalities, to states of the Federation, and to the Federal District.
ESG dimension	Governance
Theme	Governance - Port Administration
SDG	17

IDENTIFICATION	**LAW No. 9432, OF JANUARY 8, 1997.**
Type - Kind	Federal law
Summary - Menu	Provides the ordering of water transport and applies to I - shipowners, shipping companies, and Brazilian vessels; II - foreign vessels that are affected by Brazilian shipowners. Additionally, shipowners, shipping companies, and foreign vessels are subject to this law when supported by agreements signed by the Union.
ESG dimension	Governance
Theme	Governance - Waterway Transport
SDG	13 – 14

IDENTIFICATION	**LAW No. 9537, OF DECEMBER 11, 1997 - WATER TRAFFIC SAFETY LAW.**
Type - Kind	Federal law
Summary - Menu	Provides the safety of waterway traffic in areas under national jurisdiction and in additional provisions.
ESG dimension	Governance
Theme	Governance - Security - Water transport
SDG	

IDENTIFICATION	**LAW No. 9611, OF FEBRUARY 19, 1998.**
Type - Kind	Federal law
Summary - Menu	Provides multimodal cargo transport.
ESG dimension	Governance
Theme	Port-city relationship, corporate social responsibility
SDG	9 – 11 – 13

IDENTIFICATION	**LAW No. 9719, OF NOVEMBER 27, 1998.**
Type - Kind	Federal law
Summary - Menu	Provides rules and general conditions for protecting port workers.
ESG dimension	Governance and Social
Theme	Human rights – governance – corporate social responsibility
SDG	8 - 3

IDENTIFICATION	**LAW No. 9612, OF MARCH 1998 - MONEY LAUNDERING PREVENTION LAW.**
Type - Kind	Federal law
Summary - Menu	Provides about the crimes of "laundering" or concealing assets, rights, and values, preventing the use of the financial system for illicit activities and establishes the Financial Activities Control Council (COAF) and other measures.
ESG dimension	Governance
Theme	***Compliance - Governance - Integrity***
SDG	16

IDENTIFICATION	**LAW No. 9782, OF JANUARY 26, 1999.**
Type - Kind	Federal law
Summary - Menu	Provides the National Health Surveillance System, establishes the National Health Surveillance Agency, and other additional measures.
ESG dimension	Governance
Theme	Governance - Regulatory agency
SDG	6 – 11 – 12

IDENTIFICATION	**DECREE No. 3678, OF NOVEMBER 30, 2000.**
Type - Kind	Presidential Decree
Summary - Menu	Enacts the Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, concluded in Paris on December 17, 1997.
ESG dimension	Governance
Theme	***Governance - Transparency - Compliance***
SDG	16

IDENTIFICATION	**COMPLEMENTARY LAW No. 101 OF MAY 4, 2000 - FISCAL RESPONSIBILITY LAW.**
Type - Kind	Federal law
Summary - Menu	Provides public finance standards that prioritize responsible fiscal management. It mandates planned and transparent actions to prevent risks and correct any deviations that may affect the balance of public accounts.
ESG dimension	Governance
Theme	Governance - Risks
SDG	16

IDENTIFICATION	**LAW No. 10520, OF JULY 17, 2002 – ELECTRONIC TRADING SYSTEM LAW.**
Type - Kind	Federal law
Summary - Menu	Provides within the scope of the Union, States, Federal District, and Municipalities, the bidding modality called electronic trading system in accordance with the art. 37, item XXI, of the Federal Constitution. This modality is used for the acquisition of common goods and services.
ESG dimension	Governance
Theme	Governance - Transparency
SDG	16

IDENTIFICATION	**PRESIDENTIAL DECREE No. 4410, OF OCTOBER 07, 2002 – INTER-AMERICAN CONVENTION AGAINST CORRUPTION (OAS).**
Type - Kind	Presidential Decree
Summary - Menu	Enacts the Inter-American Convention against Corruption, signed on March 29, 1996, with a reservation for article XI, paragraph 1, item "c".
ESG dimension	Governance
Theme	Governance - Transparency - Compliance - Corruption
SDG	16

IDENTIFICATION	**DECREE No. 5480, OF JUNE 30, 2005.**
Type - Kind	Presidential Decree
Summary - Menu	Provides the Correction System of the Federal Executive Branch, with activities related to prevent and investigate irregularities within the scope of the Federal Executive Power through the establishment and implementation of correctional procedures.
ESG dimension	Governance
Theme	Governance – Compliance - Integrity
SDG	16

IDENTIFICATION	**PRESIDENTIAL DECREE No. 5687, OF JANUARY 31, 2006.**
Type - Kind	Presidential Decree
Summary - Menu	Enacts in Brazil the United Nations Convention against Corruption, proposed by the United Nations General Assembly on October 31, 2003.
ESG dimension	Governance
Theme	Governance - Transparency - Compliance - Corruption
SDG	16

IDENTIFICATION	**DECREE No. 6759, OF FEBRUARY 5, 2009.**
Type - Kind	Presidential Decree
Summary - Menu	Provides the administration of customs activities, as well as the inspection, control, and taxation of foreign trade operations.
ESG dimension	Governance
Theme	Governance - Customs
SDG	16 – 17

IDENTIFICATION	**COMPLEMENTARY LAW No. 135, OF JUNE 4, 2010 – CLEAN RECORD LAW.**
Type - Kind	Federal law
Summary - Menu	Modifies Complementary Law No. 64, of May 18, 1990, which outlines cases of ineligibility and termination periods, in accordance with § 9 of art. 14 of the Federal Constitution. The cases of ineligibility aim to safeguard administrative probity and morality in the exercise of a mandate.
ESG dimension	Governance
Theme	Governance - Transparency - Compliance - Integrity
SDG	16

IDENTIFICATION	**TCU NORMATIVE INSTRUCTION No. 63, OF SEPTEMBER 1, 2010.**
Type - Kind	Normative instruction issued by the Federal Audit Court
Summary - Menu	Provides standards for organizing and presenting management reports and other complementary pieces that will be part of the federal public administration accounting processes.
ESG dimension	Governance
Theme	Governance - Transparency
SDG	16

IDENTIFICATION	**LAW No. 12462, OF AUGUST 4, 2011 - DIFFERENT PUBLIC PROCUREMENT REGIME – RDC.**
Type - Kind	Federal law
Summary - Menu	Provides the Differentiated Regime for Public Procurement, while also making amendments to various laws and creating new positions and agencies. Specifically, it amends Law No. 10683 of May 28, 2003, which deals with the organization of the Presidency of the Republic and the Ministries, as well as the legislation of the National Civil Aviation Agency (ANAC) and the Brazilian Airport Infrastructure Company (Infraero). It also creates the Secretariat of Civil Aviation and new positions of Minister of State, positions in commission, and positions of Air Traffic Controller. Additionally, it authorizes the hiring of temporary air traffic controllers. The bill further amends Laws 11182 of September 27, 2005; 5862 of December 12, 1972; 8399 of January 7, 1992; 11526 of October 4, 2007; 11458 of March 19, 2007, and 12350 of December 20, 2010, as well as the Provisional Measure No. 2185-35 of August 24, 2001. Finally, it revokes provisions of Law No. 9649 of May 27, 1998.
ESG dimension	Governance
Theme	Governance - Hiring - Transparency
SDG	16

IDENTIFICATION	**LAW No. 12.527, OF NOVEMBER 18, 2011 - ACCESS TO INFORMATION LAW (LAI).**
Type - Kind	Federal law
Summary - Menu	Regulates the access to information as outlined in item XXXIII of article 5, item II of section 3 of article 37, and section 2 of article 216 of the Federal Constitution. It also amends Law No. 8112 of December 11, 1990, revokes Law No. 11111 of May 5, 2005, and certain provisions of Law No. 8159 of January 8, 1991, and other provisions.
ESG dimension	Governance
Theme	***Governance - transparency - Compliance***
SDG	16

IDENTIFICATION	**DECREE No. 7724, OF MAY 16, 2012.**
Type - Kind	Presidential Decree
Summary - Menu	Regulates Law No. 12527 of November 18, 2011, which provides for access to information as stated in item XXXIII of the caput of art. 5, item II of § 3 of art. 37, and § 2 of art. 216 of the Federal Constitution.
ESG dimension	Governance
Theme	Transparency - Governance
SDG	16

IDENTIFICATION	**LAW No. 12846, OF AUGUST 1, 2013 - ANTI-CORRUPTION LAW.**
Type - Kind	Federal law
Summary - Menu	Provides administrative and civil liability for legal entities engaged in acts against the public administration, whether national or foreign, and other provisions.
ESG dimension	Governance
Theme	***Governance - Transparency - Compliance***
SDG	16

IDENTIFICATION	**LAW No. 12813, OF MAY 16, 2013.**
Type - Kind	Federal law
Summary - Menu	Addresses conflicts of interest in the Federal Executive Branch's exercise of the office employment. The legislation not only guides the behavior of public officials but also enables the agency to exercise control over its employees.
ESG dimension	Governance
Theme	Governance - Compliance - Conflict of interest
SDG	16

IDENTIFICATION	**LAW No. 12815 OF JUNE 05, 2013 - NEW PORT LAW.**
Type - Kind	Federal law
Summary - Menu	Provides about both direct and indirect exploitation by the Union of ports and port facilities, as well as the activities carried out by port operators. It also amends Laws No. 5025 of June 10, 1966; 10233 of June 5, 2001; 10683 of May 28, 2003; 9719 of November 27, 1998, and 8213 of July 24, 1991. Additionally, it revokes Laws No. 8630 of February 25, 1993, and 11610 of December 12, 2007, as well as provisions of Laws No. 11314 of July 3, 2006, and 11518 of September 5, 2007, and other provisions.
ESG dimension	Governance
Theme	Governance - Exploitation of port facilities
SDG	8 – 9

IDENTIFICATION	**DECREE No. 8033, OF JUNE 27, 2013.**
Type - Kind	Presidential Decree
Summary - Menu	Provides the implementation of Law No. 12815 of June 5, 2013, as well as other legal provisions that oversee the functioning of organized ports and port facilities.
ESG dimension	Governance
Theme	Governance - Exploitation of port facilities
SDG	8 – 9

IDENTIFICATION	**LAW No. 12846, OF AUGUST 1, 2013 - COMPLIANCE AND CRIMINAL LIABILITY.**
Type - Kind	Federal law
Summary - Menu	Provides administrative and civil liability for legal entities engaged in acts against the public administration, whether national or foreign, and other provisions.
ESG dimension	Governance
Theme	Compliance - Governance
SDG	16

IDENTIFICATION	**ANTAQ RESOLUTION No. 3.220, OF JANUARY 8, 2014.**
Type - Kind	Resolution issued by the National Waterway Transport Agency - ANTAQ
Summary - Menu	Provides the procedures for preparing leasing projects and recomposing the economic and financial balance of leasing agreements for areas and port facilities in organized ports.
ESG dimension	Governance
Theme	Governance - port city relationship
SDG	8 – 9 – 11 – 16

IDENTIFICATION	**ANTAQ RESOLUTION No. 7, OF MAY 31, 2016.**
Type - Kind	Resolution issued by the National Waterway Transport Agency - ANTAQ
Summary - Menu	Provides the regulation that govern the use of port areas and facilities managed by the port administration within organized ports.
ESG dimension	Governance
Theme	Governance - port city relationship
SDG	8 – 9 – 17

IDENTIFICATION	**LAW No. 13303, OF JUNE 30, 2016 - LAW OF STATE COMPANIES.**
Type - Kind	Federal law
Summary - Menu	Provides the legal status of public companies, government-controlled companies, and their subsidiaries within the Union, States, Federal District, and Municipalities.
ESG dimension	Governance
Theme	***Governance - Transparency - Compliance***
SDG	8 – 9 – 17

IDENTIFICATION	**DECREE No. 9203, OF NOVEMBER 22, 2017.**
Type - Kind	Presidential decree
Summary - Menu	Provides the governance policy for the direct, autarchic, and foundational federal public administration. It clarifies the principles and guidelines of good public governance, including integrity, reliability, accountability, and responsibility.
ESG dimension	Governance
Theme	Governance - Compliance - Integrity
SDG	16

IDENTIFICATION	**LAW No. 13709, OF AUGUST 14, 2018 - GENERAL DATA PROTECTION LAW (LGPD).**
Type - Kind	Federal law
Summary - Menu	Provides for the processing of personal data, whether by a natural person or a public or private legal entity, including in digital media. Its purpose is to safeguard the fundamental rights of freedom and privacy, as well as the free development of an individual's personality.
ESG dimension	Governance
Theme	***Governance - Transparency - Compliance***
SDG	16

IDENTIFICATION	**DECREE No. 10024, OF SEPTEMBER 20, 2019.**
Type - Kind	Presidential Decree
Summary - Menu	Regulates the electronic bidding process for goods and common services acquisition, including engineering services, in the auction mode. It also allows for the use of electronic waivers within the federal public administration.
ESG dimension	Governance
Theme	Governance - hiring
SDG	8 - 9

IDENTIFICATION	**LAW No. 13848, OF JUNE 25, 2019.**
Type - Kind	Federal law
Summary - Menu	Provides a new regulatory agencies law, covering their management, organization, decision-making processes, and social control.
ESG dimension	Governance
Theme	Governance - Regulatory Agencies
SDG	16

IDENTIFICATION	**NORMATIVE INSTRUCTION CGU No. 13, OF AUGUST 8, 2019.**
Type - Kind	Normative Instruction issued by the Comptroller General of the Union
Summary - Menu	Provides the procedures for determining the administrative responsibility of legal entities covered under Law No. 12846 of August 1, 2013. These procedures must be followed by all bodies and entities within the Federal Executive Branch.
ESG dimension	Governance
Theme	Governance - Transparency - Compliance
SDG	16

IDENTIFICATION	**RFB ORDINANCE No. 490, OF MARCH 14, 2019.**
Type - Kind	Ordinance Issued by the Federal Revenue Service of Brazil
Summary - Menu	Provides the standards for bidding, permission, or concession of public services related to the movement and storage of goods under customs control in public use bonded terminals and dry ports. It also includes guidelines for evaluating the tenant or concessionaire of the public service.
ESG dimension	Governance
Theme	Governance - Port Operation
SDG	8 - 9 - 16

IDENTIFICATION	**ANTAQ RESOLUTION No. 7823, OF JUNE 18, 2020.**
Type - Kind	Resolution issued by the National Waterway Transport Agency - ANTAQ
Summary - Menu	Provides the basis of onerous assignment on public ports.
ESG dimension	Governance
Theme	Governance - port city relationship
SDG	8 - 9 - 11 - 17

IDENTIFICATION	**ANTAQ RESOLUTION No. 7821, OF JUNE 19, 2020.**
Type - Kind	Resolution issued by the National Waterway Transport Agency - ANTAQ
Summary - Menu	Provides the procedures for preparing a simplified version of the previous studies mentioned in Article 6, Section 1, Item IV of Decree No. 8033 of June 27, 2013.
ESG dimension	Governance
Theme	Governance - Feasibility studies
SDG	9

IDENTIFICATION	**CGU ORDINANCE No. 1214, OF JUNE 9, 2020.**
Type - Kind	Ordinance Issued by the Comptroller General of the Union
Summary - Menu	Provides the requirements and procedures for rehabilitating companies or individuals who have been declared disreputable under the terms of the Law 8666 of June 26, 2013 (Bidding Law) regulated by the Law 12846 of August 01, 2013.
ESG dimension	Governance
Theme	Governance - Compliance
SDG	16

IDENTIFICATION	**LAW No. 14.133, OF APRIL 1, 2021 - BIDDING LAW AND ADMINISTRATIVE CONTRACTS.**
Type - Kind	Federal law
Summary - Menu	The law is part of a set of legal diplomas, with the aim of favoring the bidding procedures of companies that have Compliance programs.
ESG dimension	Governance
Theme	Governance - Transparency - Compliance - Hiring
SDG	16

IDENTIFICATION	**ANTAQ RESOLUTION No. 64, OF DECEMBER 15, 2021.**
Type - Kind	Resolution issued by the National Waterway Transport Agency - ANTAQ
Summary - Menu	Provides about the temporary use of areas and port facilities within the public port's polygon.
ESG dimension	Governance
Theme	Governance - port city relationship
SDG	9 – 11

IDENTIFICATION	**LAW No. 14133, OF APRIL 1, 2021 - NEW BIDDING LAW.**
Type - Kind	Federal law
Summary - Menu	Provides general rules for bidding and contracting in the direct, autonomous, and foundational Public Administrations of the Union, States, Federal District, and Municipalities. It applies to the bodies of the Legislative and Judiciary Powers of the Union, States, and Federal District, as well as the bodies of the Legislative Power of the Municipalities when performing administrative functions. Additionally, it covers special funds and other entities controlled directly or indirectly by the Public Administration. However, this law does not apply to public companies, government-controlled companies, and their subsidiaries governed by Law No. 13303 of June 30, 2016, except for the provisions of Article 178.
ESG dimension	Governance
Theme	Governance - Transparency
SDG	8 – 9

IDENTIFICATION	**DECREE No. 11129, OF JULY 11, 2022.**
Type - Kind	Presidential Decree
Summary - Menu	Regulates Law No. 12846 of August 01, 2013, dealing with the administrative and civil liability of legal entities engaged in acts against public administration, whether in the national or foreign context. This decree replaces the Decree No. 8420 of March 18, 2015.
ESG dimension	Governance
Theme	***Governance - Transparency - Compliance***
SDG	16

IDENTIFICATION	**ANTAQ RESOLUTION No. 71, OF MARCH 30, 2022.**
Type - Kind	Resolution issued by the National Waterway Transport Agency - ANTAQ
Summary - Menu	Provides the procedures for authorizing the construction and operation of a private use terminal, a cargo transfer station, a small public port facility, and a tourist port facility.
ESG dimension	Governance
Theme	Governance
SDG	8 - 9 - 11 - 16

IDENTIFICATION	**ANTAQ RESOLUTION No. 85, OF AUGUST 18, 2022.**
Type - Kind	Resolution issued by the National Waterway Transport Agency - ANTAQ
Summary - Menu	Provides the steps to be taken for the development and evaluation of technical, economic, and environmental feasibility studies, as well as the restoration of the economic and financial equilibrium of lease agreements of public ports' areas and their installations.
ESG dimension	Governance
Theme	Governance - Feasibility studies
SDG	8 – 9

IDENTIFICATION	**ANTAQ RESOLUTION No. 75, OF JUNE 2, 2022.**
Type - Kind	Resolution issued by the National Waterway Transport Agency - ANTAQ
Summary - Menu	Provides the supervision procedures regarding provision of port services and establishes administrative infractions.
ESG dimension	Governance
Theme	Governance - Port Operation
SDG	9 - 16

IDENTIFICATION	**DECREE No. 11243, OF OCTOBER 21, 2022.**
Type - Kind	Presidential Decree
Summary - Menu	Provides the measures to promote good regulatory practices within the federal Executive Branch, in compliance with Annex II to the Protocol on Trade and Economic Cooperation between the Governments of Brazil and the United States of America Related to Commercial and Transparency. It also modifies Decree No. 10139 of November 28, 2019, and the Decree No. 10411 of June 30, 2020.
ESG dimension	Governance
Theme	Governance - Transparency - Regulation
SDG	8 and 17

IDENTIFICATION	**DECREE No. 11245, OF OCTOBER 21, 2022.**
Type - Kind	Presidential Decree
Summary - Menu	Regulates the Law No. 14273 of December 23, 2021to the federal public administration. It introduces the Railway Development Program and makes changes to Decree No. 8428 of April 2, 2015.
ESG dimension	Governance
Theme	Governance - Rail transport
SDG	8 and 9

12

PORT-CITY RELATIONSHIP

This chapter presents the concept and a updated vision of the relationship between ports and cities, and their interconnectedness with the SDGs and the ESG context, a new role and historical positioning of ports in terms of people, the environment, and cities infrastructure.

Conceptualizing the Port-City Relationship

Damasceno (2009) points that port activities are part of a complex environment that is constantly reorganizing, with intense globalization, besides interests that may sometimes diverge or converge among stakeholders, regarding port-city relations. Oliveira (2011, p.9) comments the following:

> ***An essential point for understanding the port-city relationship is that it is not a line, a clearly defined border on a map or plan that will mark the rupture between two different worlds, with totally different ways of functioning. It is much more a question of the surface, naturally extended longitudinally, but which has a certain depth and which is not always homogeneous.***

There is a strong interdependency between ports and cities, with social, environmental, and legal implications. Ornelas (2008) defines this relationship as a flow and interaction process of functional links between port installations and cities. These links involve industrial, commercial, transport, mobility, and spatial relationships. The author adds:

> ***The port/city relationship is generally centered fundamentally on the coastal urban zone, that is, on the interface between the port and the city where it is located. This relationship is based, above all, on functional and spatial links, that is, on the existing relationship due to industrial, commercial, transport activities and the spatial proximity between them. (ORNELAS, 2008, p. 21)..***

Wiegmans and Louw (2012) consider that this relationship is determined by the form and function of the port and the space in which it operates, and can be viewed as a succession of time phases. Each «era» is characterized by an increase in the volume of transportation or technical advancements in the handling of goods by sea or in ports. In each era, new port facilities were built farther away from the previous ones, resulting in an increasing geographical separation between ports and cities. However, in other eras, port facilities were constructed closer to urban regions or urban regions expanded towards port facilities, leading to spatial conflicts and other issues. These relationships can be seen as a pendulum, sometimes distancing physically and socially, and at other times drawing closer and generating synergies.

Hoyle (1988) considers that the separation and distancing between ports and cities are influenced by three factors

- **Technological:** the emergence of large vessels, development of terminals, and widespread use of containers, and modern methods of cargo handling;
- **Spatial:** the size of modern ports requires vast land and water space;
- **Socio-economic:** the decline of port-related jobs in port cities and the environmental prospects related to industrial ports round out the factors.

The port-city relationship, regarding the ESG context, could be associated to stakeholder capitalism, climate change, and a new managers mindset. We can define a modern port-city relationship, as follows:

> ***A** social design process between port facility agents and stakeholder representatives with a dual purpose. First, to mitigate the negative impacts of port activity in cities, mainly in relation to conflicts in the occupation of urban space, problems involving urban traffic and transport and logistics interacting between port and city, the environmental impacts, the conflicts in the labor market and informational asymmetries. Second, to enhance the positive impacts of port activity in cities, mainly in relation to the labor market, regional development, technological development, innovation, foreign direct investment, taxes revenue, creation and expansion of production chains and social impacts on communities (CUTRIM, p. 72- 73).*

Port-City Relationship and SDGs

An essential information source for understanding the contemporary port-city relationship is the work done by the International Association of Cities and Ports (AIVP), which aims to enhance connections between cities and ports, encouraging dialogue and collaboration.

AIVP's vision is to cooperate in developing a port city that meets the needs and expectations of all stakeholders: local communities, port authorities, citizens, and economic operators.

This vision and mission signify a transformation in the port-city relationship, in which people and their cities assume a central position in connection with port organizations, directly composing the new ESG context.

AIVP is a French-based agency established in 1988 and currently comprises 190 port entities. In 2018, during the Quebec Conference in Canada, the agency developed the "AIVP Agenda 2030", which is the first global initiative to adapt the SDGs to port activities. This initiative was presented and approved by the UN in 2019 as a contribution by port cities toward achieving the 17 SDGs. Table 45 presents the document's 10 objectives and 45 targets, according to AIVP's 2022 report.

• Table 44 - AIVP's objectives and goals and their relationship with the UN SDGs

Purpose/ theme	Goals	Relationship with the SDGs
Adaptation to climate change	• Propose joint measures both the port and city to prevent flooding in, while also connecting infrastructure. Additionally, implement an effective land management policy as, also, part of strategic planning documents. • Restore the riparian vegetation to its original state. • Establish an early warning system to predict and face eventual consequences of climate change. • Take into account the potential impacts of the port on the ecosystem. • Give priority to the treatment of carbon emissions by utilizing the latest CO2 reduction and storage technologies.	1. No poverty 7. Affordable and clean energy 9. Industry, innovation, and infrastructure 11. Sustainable cities and communities 13. Climate action 14. Life below water

Energy transition and circular economy	• Strengthen relationships with partners. • Prioritize circular economy projects and support activities by promoting the exchange and recycling of materials and energy. • Reduce carbon usage by prioritizing the use of renewable and carbon-neutral energy. • Encourage partners to consume and generate clean energy.	Affordable and clean energy (7); Decent work and economic growth (8); Industry, innovation, and infrastructure (9); Sustainable cities and communities (11); Responsible consumption and production (12); Partnerships for the goals (17).
Sustainable mobility	· Encourage community mobility by promoting collaborative and multimodal travel options; · Implement logistics solutions that utilize waterways, railroads, and other clean energy transportation modes, both within and outside of the port; · Mitigate the negative effects of peak activity periods in the port.	Industry, innovation, and infrastructure (9); Sustainable cities and communities (11).

Renewed governance	· Ensure representation of all stakeholders, including civil society, in the decision--making bodies of the city's port. · Provide continuous and long-term consultation throughout the entire region of the city's port. · Establish a transparent management process and open information systems. · Foster collaborative approaches to support decision-making. · Implement a territory management policy that balances urban use and the active port.	Reduced inequalities (10); Sustainable cities and communities (11); Climate action (13); Life on land (15); Peace, justice, and strong institutions (16); Partnerships for the goals (17).
Invest in human capital	· Mobilize both the public and private sectors to promote lifelong professional training and personal development for citizens. · Match profiles and promote skills transfer to enhance flexibility. · Conduct training for smart and green technologies in cities and ports. · Foster projects and interactions between schools, training institutes, and the professional world. · Establish collaborative spaces to stimulate new projects.	Quality education (4); Gender equality (5); Decent work and economic growth (8); Industry, innovation, and infrastructure (9); Reduced inequalities (10); Climate action (13); Life below water (14); Partnerships for the goals (17)

Port culture and identity	· Develop walkways and open spaces that promote understanding of port and logistical activities; · Integrate spaces for residents and visitors to increase visibility of the port and its activities; · Establish port centers; · Offer daily news and information about the port; · Plan cultural events.	Quality education (4); Decent work and economic growth (8); Sustainable cities and communities (11); Responsible consumption and production (12).
Quality food for everyone	· Develop intelligent systems for monitoring and controlling food resources throughout the entire logistics chain. · Improve storage capacity for perishable products during import and export to combat food waste. · Implement a tailored commercial policy to promote fair trade, organic, and local production. Sustainable agriculture. · Encourage innovative food research projects within the city's port and increase port areas dedicated to commercial fishing.	Zero hunger (2); Responsible consumption and production (12); Life below water (14).

Port City Interface	- Include measures to reduce inconvenient in the port construction project. - Assess the port situation and the city's port heritage to accurately reflect the historical significance of the site. - Create public spaces and recreational or cultural facilities in the city's port interface zones to establish an appealing new area. - Encourage the architectural and landscape integration of port facilities.	Quality education (4); Sustainable cities and communities (11).
Health and quality of life	· Conduct independent and transparent measurements to assess the quality of air, water, sound levels, and light pollution in the city's port territory. · Improve the use and the management of fresh and sea water in ports. · Encourage and assist in the development of eco-friendly port facilities. · Implement a commercial policy that incentivizes the use of environmentally-friendly ships and enforces reduced speed when approaching port cities. · Regulate cruise ship arrivals based on the port city's capacity while maintaining the balance and attractiveness of the local area.	Good health and well-being (3); Clean water and sanitation (6); Sustainable cities and communities (11); Responsible consumption and production (12).

Protect biodiversity	· Enhance and sustain the water quality in port basins; · Conduct periodic surveys of biodiversity within the city's port area and make the findings public; · Avoid damaging vulnerable natural habitats when constructing port facilities onshore or offshore and regulate ship-generated waves; · Back civil society initiatives aimed at safeguarding the fauna and flora of the municipal port area; · Execute programs that promote the restoration and growth of biodiversity in the port city's territory.	Good health and well-being (3), Clean water and sanitation (6), Sustainable cities and communities (11), Climate action (13).

Source: Pinto, Cutrim and Robles (2021) adapted from AIVP (2019).

Principles and Good Practices of the Port-City Relationship

There is no single, universal model for the Port-City Relationship. Instead, each organization must decide on a model based on the unique characteristics of its installation, cargo, flow of people, geography, stakeholders' needs and desires, and its own principles and values.

Despite this variability, certain principles and best practices for a modern port-city relationship can be identified, which should be taken into account and adapted to suit each port's specific context.

Principles and paradigms:

a. Stakeholder capitalism;
b. Empathy;
c. Collaboration with the entire port ecosystem;
d. Transparency;
e. Communication in an integrated manner in the organization and proactively with stakeholders;
f. The ability to innovate - Innovability.

TIP

There can be no innovation without sustainability. Currently, both are shifting towards a focus on transversal skills. It is important to incorporate sustainability strategies, indicators, and targets into every innovation project, and likewise, to include innovation strategies, indicators, and targets in every sustainability project.

g. Shared value

TIP

Get inspired by the Corporate Social Responsibility model developed Porter, M. and Kramer, M. (2011) in their famous article "Creating Shared Value," published in the Harvard Business Review.

Following, we present some of the best practices in the port-city relationship:

- **A)** Stakeholders mapping;
- **B)** Creation of a Stakeholder Management Plan;
- **C)** Material issues' mapping;
- **D)** Creation of organizational areas for Institutional Relations and Community Relations;
- **E)** Participation on committees, councils, and associations along with other organizations;
- **F)** Emphasizing the communication area role in a strategic and interactive way with the city;
- **G)** Creation of Foundations and Institutes;
- **H)** Creation of collaboration networks with academia and research institutions
- **I)** Promotion of local and regional entrepreneurship;
- **J)** Fostering the hiring of local labor and development of local suppliers;
- **K)** Insertion of the port-city relationship in the organization's strategic planning.

In addition to these principles and best practices, we recommend the creation of Port Centers. A Port Center, according to AIVP, is a public space open to the society and serves as a means of integrating the local population with the port operations. It must provide information about the professions involved, types of vessels, benefits and economic gains, technologies, curiosities, and the history of local port activities (AIVP, 2022).

Port centers aim to raise awareness and create value for port activities, by offering the public the opportunity to gain knowledge and experience of contemporary port activities (AIVP, 2022)..

TIP

Study, consider, and adapt the AIVP guidelines for creating a Port Center, which are outlined in the handbook titled "Experiencing the Port Together! The Missions Charter of a Port Center."

Consider the collaboration with other port organizations, as well as municipal and state public authorities, to establish Port Centers.

Finally, an effective port-city relationship should not aim to integrate the port into the city as a "foreign element" that 'needs' to be incorporated, since the port is part of the community, just like academia, fishermen, environmental groups, port companies, and the government.

13

THE PORT SUSTAINABILITY JOURNEY

The purpose of this guide is, as said, to provide a framework, a roadmap a journey to sustainability. It is essential to emphasize that this journey is not predetermined, it is not a one-size-fits-all approach, nor is it a universal model. The journey must be flexible and adaptable. To use an analogy, it is similar to the numerous Amazon River tributaries; there are hundreds of them, each with different origins and characteristics, but they all contribute to the same goal, forming the Amazon Basin.

Each port organization must assess this guide and the steps proposed, in order to do a self-diagnosis to identify its stage of development, decide what is relevant for their stakeholders, what is aligned with its principles and values, and the organization's strategic planning.

The steps proposed during this journey are of two types: mandatory procedures, based on legislation and the operational license's conditions, and voluntary procedures, based on strategic planning and the organization's commitment to sustainability.

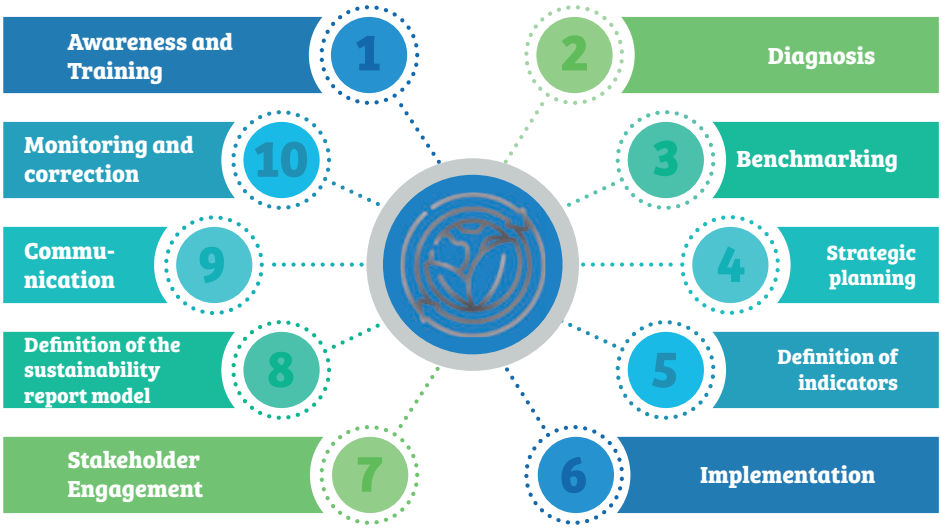
We acknowledge that public ports face more limitations compared to private port terminals due to stricter legislation by one side and greater autonomy of Private-Use Terminals (TUPs) in the other side. It is important to note that in terms of ESG strategy, we are mainly addressing voluntary actions beyond legal constraints, requiring a greater autonomy and creativity towards the solutions.

Please note that the steps proposed do not necessarily have to be executed in a specific order. In spite of they are presented in a logical sequence, they can be adapted and changed as necessary. However, it is important to keep in mind that some steps are considered the industry best practices. For instance, it is not advisable to publish a sustainability report without first having mapped stakeholders and material topics.

It is also important to remark that a sustainability strategy, implemented through the steps outlined, should be in accordance with the organization's business strategy.

In this sense, this journey can be understood and analyzed as a management process and like any other, it involves a cycle of planning, execution, control, and correction processes. This management cycle was adapted from the PDCA cycle originally used in Quality Management, and we have outlined more specific phases shown in the Figure 5.

• Figure 5 – Sustainability Journey Management Cycle



These general steps of a sustainability journey are primarily related to voluntary processes, projects, programs, plans, partnerships, and sustainable policies. This step-by-step guide do not delve into the legal issues.

To provide a better understanding of the Port Sustainability Journey, we have created a roadmap divided into 6 stages regarding the maturity level of the organizations and based upon the ESG strategy, as follows:

- **Figure 6 - Types of Sustainability Journey**

The Journey Starting Point

The journey starting point is referred to the most important steps to begin the sustainable journey and it contributes to the organization diagnosis and planning, as follows:

» **1.** Carry out a diagnosis of the state of the sustainability concept in the port organization.

TIP

Use as a reference the "photo" of exemplary sustainable practices presented in the chapters 8, 9, and 10 of this Guide. It is recommended to seek external assistance for conducting this diagnosis. An independent perspective can provide an unbiased assessment.

» **2.** Perform benchmarking with reference ports in port in sustainability pratices.

TIP

First, search for ports with a similar cargo profile and context. Next, conduct research on reference cases, both national and international, and review the guiding documents of port and maritime sector associations.

» **3.** Create a sustainability strategy.

» **4.** Align the organization's vision, mission, and values with sustainability.

» **5.** Create a sustainability committee.

TIP

Committees may vary in their names, forms, and levels of autonomy, depending on the specificities of each organization. However, one crucial feature is that they should be interdisciplinary and include representatives from all organization sectors. Their main role is to act as an advisory body to the Administrative Council and to the Executive Board.

» **6.** Create a thematic working group.

TIP

Working groups may vary in name, form, and autonomy depending on the unique characteristics of each ecosystem. These groups can take the form of committees, technical chambers, or working groups. Each group should have a specific theme, such as sustainability, innovation, research and development, diversity and inclusion, climate change, and renewable energies. It is recommended to invite representatives from other stakeholder groups to participate on a voluntary basis. These representatives may include professional specialists from the private sector, academia, and public authorities.

» **7.** Create a sustainability policy

» **8.** Create a local and institutional sustainability agenda.

TIP

The institutional work agenda should be carried out in collaborativon with and for the entire port ecosystem.

» **9.** Develop an organizational culture of sustainability.

» **10**. Encourage on the Board of Directors actions for sustainability

TIP

To ensure that sustainability is well-represented in the organization's main agendas and decisions, the Board of Directors should include at least one expert advisor on sustainability. Additionally, it is required that at least one member of the Sustainability Committee to be part of the Board of Directors

» **11**. Develop leadership focused on sustainability.

TIP

Create training programs for top management.

Facilitate cooperation among ports.

Encourage the exchange of information, experiences, and involvement in projects of sustainability.

Introduce the role of a sustainability Sponsor.

Search mentoring support for top management.

» **12**. Promote education, awareness and engagement actions for employees.

TIP

Utilize courses and gamification techniques dedicated for all employees. Implementing immersion and mentoring programs for the leaderships and top management. Incorporate various education methodologies, including face-to-face, remote, self-instructional, and immersive techniques. Follow the methodology outlined in the AA1000 STAKEHOLDER ENGAGEMENT STANDARD 2015 (ACCOUNTABILITY) standard to effectively manage and engage stakeholders.

» **13**. Create a dedicated budget for the port's environmental area in financial planning.

Environmental Journey

The environmental journey represents a fundamental pillar of the sustainability. The commitment to sustainability approaches the environmental risks to human beings, organizations, and nature in a systemic way. The strategic importance of the environmental pillar has been maintained in all updated sustainability structures. Currently, we are facing the climate emergency, and ports have a significant role to play in facing this issue. Following, we present the environmental journey proposed steps.

» **1.** Create an environmental management system (EMS).

TIP

The Environmental Management System can take on various forms of organization and institutionalization. The more institutionalized environmental management is, the more sustainable development can be achieved.

» **2.** Create an environmental education program.

» **3.** Create a risk management program.

» **4.** Adopt an environmental certification.

» **5.** Create a system for identifying and controlling legal requirements for licenses and monitoring.

TIP

Hire companies and software dedicated to support this type of control. It is recommended to have specific teams to address these main guidelines: emergency response, inspections, third-party and internal audits, licensing and certifications, monitoring, and environmental education.

» **6.** Create environmental monitoring programs

TIP

- **Softwares:**

Water quality
Sediment quality
Noise levels
Atmospheric emissions
Mangrove forests
Shoreline erosion
Avian fauna
Artisanal fishing practices
Exotic species management
Benthic community analysis
Planktonic Phyto-community assessment
Planktonic zoo community analysis
Ichthyofauna and carcino-fauna monitoring
Particulate matter mitigation
Dredging impact assessment

» **7.** Create waste management programs.

TIP

Establish a Waste Center responsible to send the waste collected and produced for recycling in partnership with local institutions. Eventually, provide the compost produced to port's neighboring communities. Reference: The Solid Waste and Effluent Management Program in Brazilian Maritime Ports.

» **8.** Create a fauna and flora preservation program

» **9.** Create projects to control and prevent bio-invasions

» **10**. Create a rainwater reuse project

» **11**. Create an environmental management

» **12**. Expand environmental projects based on the requirements for environmental licenses

TIP

Use the legal conditions established in the licensing processes as a reference and opportunity to expand environmental projects. This will make it easier to convince shareholders of the importance of advancing the environmental agenda and improve relationships with public bodies.

» **13**. Create a program to prevent and combat environmental emergencies.

TIP

References:

Emergency Control Plan

Mutual Aid Plan

National Plan for Prevention, Preparedness, and Quick Response to Environmental Emergencies involving Hazardous Chemicals

CONAMA Resolution No. 398

Area Plan Decree Law

Social Journey

The social journey is perhaps the most interdisciplinary of the three dimensions, encompassing topics related to employee health and safety, as well as material issues identified by stakeholders.

It is closely linked to the new approach of organizations towards stakeholder capitalism, which involves how they connect with cities, posi-

tioning the port as part of an ecosystem with multiple interdependent actors rather than the center of these relationships.

There are important principles that should be incorporated into the port positioning with the stakeholders. These principles must be presented and operationalized in the projects carried out. The main principles are:

- **Figure 7 – Principles of the Social Journey**

Following, we propose the steps for the social journey.

» **1.** Mapear os ***stakeholders***

TIP

Don't forget about the stakeholders who are outside of the polygon/port area.

» **2.** Mapping material issues.

TIP

Begin by benchmarking the material issues outlined in this guide. Then, proceed to gather data from various sources and using different collection methods.

» **3.** Correlate the material issues with port's strategic objectives and with the SDGs.

TIP

Prioritizing all SDGs and material issues is impossible. Therefore, the organization needs to determine which SDGs and priority issues to focus on and allocate its planning and resources accordingly.

» **4.** Create a volunteer program.

» **5.** Create a stakeholders managerial plan.

TIP

We recommend the following sources for study and framework: the PMBOK Guide for Stakeholder Management Plan by PMI and the Socio-institutional Relationship Guide for the mining sector by IBRAM. It is important to note that these plans should not be made for the stakeholders, but rather with the stakeholders. It is crucial to consider the material issues and validate the plan with the stakeholders themselves.

» **6.** Create a port-city relationship program.

TIP

Create or participate in leisure, cultural, sports, entrepreneurship, supplier development, workforce training, education, and health projects, including specific projects for native peoples and 'quilombolas', as well as human rights projects.

The most interesting material issues for the communities usually are related to environment and income generation. Income generation encompasses projects such as developing local suppliers, implementing qualification programs for local labor, hiring local workers, creating education and employability initiatives, and taking on young apprentices.

» **7.** Create a diversity, equity and inclusion program

» **8.** Expand social projects based on operating license requirements

TIP

Use the legal conditions established in the licensing processes as a reference and opportunity to expand social projects. This will make it easier to convince shareholders of the importance of advancing the sustainability agenda and improve the relationship with public bodies.

» **9.** Create a policy and adopt a private social investment agenda.

» **10**. Create a botanical park.

TIP

The Botanical Park can be connected to various environmental education projects, technical visits, research and innovation projects, and events. It is equipped with multipurpose facilities that enhance the relationship between the port and the city. Additionally, it has the potential to generate its own revenue through the regulation of Payment for Environmental Services.

» **11**. Build partnerships with community social organizations.

TIP

Carry out projects in partnership with these organizations, providing funding, advice, and volunteer work opportunities for employees.

» **12**. Get a Social License.

Governance Journey

The governance journey is a key aspect of ESG. Private organizations, which are part of conglomerates that have shares traded on Stock Exchanges, naturally prioritize governance. In recent years, the public sector has also made significant progress in this area. Following, we

present the steps involved in the governance journey.

» **1.** Create a corporate governance program.

TIP

We recommend the following sources for study and framework:

- IBGC's Good Corporate Governance Practices for State-Owned Companies

- IBGC's Code of Best Corporate Governance Practices

- OECD Guidelines on Corporate Governance of State-Owned Enterprises.

» **2.** Compliance and integrity program.

TIP

We recommend the following sources for study and framework:

- The Practical Guide for Integrity Management Units by CGU

- The OECD Council Recommendation on Public Integrity.

» **3.** Create a risk management program.

TIP

We recommend the following sources for study and framework:

- TCU's Risk Management Manual

- COSO's Enterprise Risk Management Manual

- International Organization of Supreme Audit Institutions (INTOSAI)'s GOV 9100 Guidelines for Internal Control Standards for the Public Sector and GOV 9130 Guidelines for Internal Control Standards for the Public Sector - Further Information on Entity Risk Management

- Adopt ISO 31000 for risk management.

» **4.** Create an internal control and compliance program.

» **5.** Create a sustainability management.

TIP

Sustainability management can have various names and serve different functions, such as environmental management or ESG. However, what truly counts is the integration of sustainability into the organization's institutional framework.

» **6.** Create a governance management.

» **7.** Create a set of institutional policies.

TIP

- **Policy Suggestions:**

1 - Conflict of interest
2 - Ethics
3 - Innovation, Research, and Development
4 - Integrity
5 - Distribution of Dividends
6 - Risk Management
7 - Corporate Governance
8 - Appointment and Succession of Members of Statutory Bodies
9 - Sponsorships
10 - Remuneration of Members of Statutory Bodies
11 - Sustainability
12 - Transactions with Related Parties

» **8.** Create a set of bylaws and regulations.

TIP

This topic pertains more to public institutions and can be modified to suit standard operating procedure models for private organizations.

Some suggestions include anti-corruption measures, internal audits, performance assessment commissions, committees for people, eligibility, succession, and compensation, information security and privacy, administrative councils, executive boards for advice, bids and contracts, and ombudsman services.

» **9.** Insert sustainability goals in the variable salary of Top Management.

» **10**. Insert the SDGs into strategic planning.

TIP

To be prioritized based on the material issues.

» **11**. Create an indicator management plan.

TIP

This guide does not aim to provide a model or set of indicators. Nevertheless, we point to the GRI sustainability reporting standard and the model developed by the World Economic Forum in collaboration with consulting firms KPMG, Deloitte, Ernst & Young, and PwC, known as "Measuring Stakeholder Capitalism Towards Common Metrics and Consistent Reporting of Sustainable Value Creation," as indicators reference.

» **12**. Adopt a sustainable procurement model.

TIP

Draw inspiration from these two sources:

1. The National Guide for Sustainable Procurement from the Attorney General's Office (AGU).

2. The Sustainable Purchasing Manual from CEBDS.

Communication Journey

The communication journey steps could be classified under the social journey. However, we have opted to present them as a separate category to emphasize the opportunity to enhance the port's relationship with society, its image, and strategic positioning. Here are the steps of the communication journey.

» **1.** Create a communication strategy for sustainability;

» **2.** Create a communication program for sustainability;

» **3.** Choose a disclosure standard and publish a Sustainability Report.

We have not identified a specific model for disclosing Sustainability Reports applied to the port sector and, this Guide does not intend to propose such a model.

TIP

The main organizations that provide disclosure standards are GRI (Global Reporting Initiative), SASB (Sustainability Accounting Standards Board), IIRC (International Integrated Reporting Council), CDP (Carbon Disclosure Project), and TCFD (Task Force on Climate-Related Financial Disclosures). We recommend starting with the GRI model, as a Sustainability Report. As you progress on your ESG journey, we suggest adopting the Integrated Report model.

» **4.** Adopt an independent external certification.

TIP

Most ports opting for an independent certification tend to choose the ISO option. The most commonly used ISO standards in the port sector are 9001, 14001, 26000, 27001, 45001, and PR 2030.

» **5.** Create means and instruments of direct communication with stakeholders.

TIP

Starting with mandatory channels, such as an Ombudsman, and moving on to more contemporary methods like creating profiles on social networks.

» **6.** Expand communication channels.

TIP

Deploy applications and social networks. Take an active role in city events, with the goal of establishing connections with a wide range of individuals and groups.

» **7.** Create a sustainability portal for the port organization.

TIP

Most ports that create a Sustainability Report limit themselves to simply inserting a PDF file on their website. While this is an option, it is not the most effective one. The best practice is to create a broader portal that includes the Sustainability Report in multiple formats. This portal should also include a center for indicators, disclosure of events, social and environmental projects, and opportunities for engagement with society.

» **8.** Take advantage of all port actions and strategies.

TIP

All projects undertaken by the organization, whether they are related to leisure, social activities, culture, entrepreneurship, education, or any other field, must adopt a strategic and interactive communication strategy with the society.

Leadership Journey

The leadership journey represents the most advanced stage of sustainability maturity. It involves cross-functional actions related to the environment, social issues, and governance. The steps of the leadership journey are presented as follow.

» **1.** Adopt port industry specific certifications.

TIP

There are few specific certifications for the port and maritime sector. We can suggest two main ones the ECOPORTS of the European Maritime Port Organization (ESPO) and the Green Marine of the Green Marine Management Corporation, a non-financial organization, related to North American ports.

» **2.** Create a circular economy program.

TIP

We recommend as study and framework sources: the Circular Economy Network of Ports (LOOP-PORTS), the Mapping of EU ports (Climate-KIC) by the European Union.

» **3.** Create an energy efficiency program.

TIP

Meet the Energy Efficiency Program of the Brazilian Federal Government

» **4.** Create Foundations, Institutes or Development Agencies.

TIP

Meet and get inspired by the Fundacion Valencia Port and the Enterprise Singapore.

» **5.** Create and or participate in open innovation HUBs and Startup incubators.

TIP

Meet and get inspired by the success cases of Rotterdam Port XL and the Cubo Adapt and use their practices, such as Hackathons organizing.

» **6.** Execute partnerships with academia and research institutions.

TIP

These partnerships can contribute to learning and education projects for employees of port organizations, community residents, and contracting services provided by universities. They can also finance research projects and implement innovation programs.

» **7.** Adopt the best sustainability and ESG practices throughout the port ecosystem and its production chain.

TIP

Promoting sustainability throughout the ecosystem can be achieved through various means as:

1. Imposing legal obligations by port authorities;

2. Establishing sustainable guidelines for procurement and contracting suppliers;

3. Implementing environmental education and engagement projects;

4. Creation of prize and reward programs;

5. Establishing partnerships with community organizations and NGOs.

» **8.** Create a resilience management plan for the entire production chain.

TIP

Meet and get inspired by the UNCTAD Maritime Logistics Resilience project, which is a part of the United Nations Conference on Trade and Development.

» **9.** Participate in pacts, commitments, partnerships and national and international agreements.

TIP

The sustainability reports of Brazilian ports have identified various associations, commitments, and pacts. These include the Human Rights Campaign Foundation (HCR), the Brazilian Network for Corporate Social Inclusion (REIS), the Coalition Movement for Racial Equity (MOVER), the Association of Private Port Terminals (ATP), the Brazilian Association of Port and Waterway Entities (ABEPH), the American Association of Port Authorities (AAPA), the Coalizão Brasil Clima, the Global Compact, the International Association of Ports and Harbors (IAPH), Bilateral Chambers of Commerce, the Brazilian Institute of Governance Corporate, the WISTA – Women International Shipping & International Trading Association, the Women Empowerment Principles, the UN Global Compact, the Business Pact for Integrity and Against Corruption, Great Place at Work, Green Ward, Conscious Capitalism, and B Corp.

» **10**. Promote education, awareness and engagement actions for all stakeholders.

TIP

Utilize various education methodologies such as face-to-face, remote, self-instructional, and immersive to cater to different learning styles. Take into account all stakeholders, both internal and external throughout the value chain. Adopt the stakeholder engagement standard outlined in the AA1000 STAKEHOLDER ENGAGEMENT STANDARD 2015 (ACCOUNTABILITY) to manage and engage with stakeholders.

» **11**. Develop a culture of sustainability throughout the port ecosystem and the production chain

» **12**. Create employability gateway

TIP

This portal should not only focus on the port itself, but also serve as a platform for the entire local community and all companies. It should be developed in partnership with municipal bodies and integrated with the training and qualification programs offered or supported by the port.

» **13**. Create a sustainability strategy for the entire port ecosystem and the production chain.

TIP

Promote environmental certifications for products handled in the port and adopt differentiated tariffs for companies with them. For instance, soyabean certified by the Round Table on Responsible Soy Association (RTRS) could be eligible.

» **14**. Create port centers collaboratively with the port ecosystem.

TIP

Consider adopting the model of the International Association of Ports and Cities (AIVP) for establishing a Port Center. The manual for this model, "Experiencing the Port Together!" and the Missions Charter of a Port Center can be helpful sources.

» **15**. Create a sustainability portal for the entire port complex.

TIP

Follow the same sustainability portal guidelines presented in the Communication Journey. In the first phase, invite tenants, TUPs, operators, and the academy to participate. In the second phase, invite Maritime Agencies, Carriers, Shipowners, and other interested stakeholders, whether public or private.

» **16**. Create a program to face the causes of the climate change.

TIP

Within this program, we propose important initiatives, as:

1. Creating a policy to address the known causes of climate change.

2. Implementing a decarbonization plan.

3. Conducting GHG inventories (Greenhouse Gases).

4. Adopting the Brazilian GHG, the Protocol GHG Program.

5. Developing offshore wind, green hydrogen, and solar renewable energy projects.

6. Implementing environmental monitoring programs for the entire port region, including underwater sound monitoring.

7. Contracting certified renewable energy when it is not financially viable or there is no space for building own renewable energy plants within the port facility.

8. Mapping the risks to port facilities associated with climate change and creating a contingency plan

» **17**. Incentive the attraction of more ecologically efficient ships.

TIP

Lower port tariffs should be adopted for ships that have environmental certifications, specifically the Environmental Ship Index and Green Marine.

» **18**. Implement a sustainable business strategy combined with the organization's business strategy

TIP

The role of a port is not limited to cargo transportation. It should also serve as a means of promoting development and generating wealth for both shareholders and stakeholders. In today's perspective on sustainability, it is essential that it to be aligned with the business strategy. It is not acceptable to coexist two different strategies.

A port can establish a new business front, focusing on sustainable practices, as follows:

1. To be an energy supply Hub for ships, operators, tenants, and industries within the port complex.

2. Creating conservation units.

3. To negotiate carbon credits.

4. To provide environmental services to companies within the port complex.

5. Providing environmental compensations.

6. Attracting companies specialized in circular economy applied to ports.

7. Encouraging sustainable tourism.

» **19**. Create relationship and collaboration instances for the entire regional and national port ecosystem.

TIP

There is no one-size-fits-all model of collaboration and relationships for these instances. They may take the form of committees, councils, or associations. The crucial factor is that the main organizations within the regional port ecosystem are involved. These organizations must contribute to the institutional Sustainability Agenda to enable genuine progress towards sustainability, which can only be achieved through networked, partnered, and collaborative efforts. We recommend the inclusion of local and state public authorities, as well as educational and research institutions.

» **20**. Positively influence public policies formulation and application.

TIP

Participate in councils and committees which involve municipal and regional public bodies in order to have a positive impact on local public policies. Also, take part in the process of updating the Master Plans of the municipalities.

» **21**. Support and encourage the creation of port, logistics and infrastructure observatories

TIP

Support by funding, collaborating, and data supply to establish and upkeep port observatories. Take a look at the example of the port observatory at www.observatorioportuario.ufma.br.

» **22**. Create a diversity, equity and inclusion program for minorities.

» **23**. Attract cargo or companies to settle in the port complex based on the use of renewable energy or low carbon.

» **24**. Create an innovation program.

TIP

CoAs discussed in this Guide, sustainability cannot exist without innovation, in the present management concept of "Innovability." The ports' expertise lies in managing international supply chains, which requires establishing strategic partnerships with academic and research institutions as well as State Research Support Foundations. To facilitate this, it is recommended to create an innovation area in the institution, enhancing many synergies between the areas of sustainability and innovation.

» **25**. Create strategic partnerships

TIP

These partnerships aim to go forward in the organization sustainability maturity and increase the impact of a management to sustainability throughout the entire port ecosystem. Additionally, they have a positive effect on improving the relationship between the port and the city. These partnerships can take various forms, including forming or participating in local development councils, regional committees, councils of the companies installed and/or users of the port ecosystem, as well partnerships with community organizations and associations, NGOs, and with academic and research institutions.

Sustainability Maturity Assessment

A maturity model presents the development of specific competencies and capabilities in an organization in a period of time (Hynds et al., 2014).

So, sustainability maturity models indicate the stage of development of organizational competencies, its adoption of best practices and frameworks, and the institutionalization of sustainability in the organizational culture and in its strategic planning. Several authors have created sustainability maturity models, such as Hepper et al. (2017), Ngai et al. (2013), Mani et al. (2010), Kirkwood et al. (2008), Baumgartner and Ebner (2010), and Sloan, Klingenberg, and Rider (2013).

These models typically propose four or five levels of maturity, each level representing higher competence and best practices than the previous one. Once an organization has fully reached its current level, it is ready to advance to the next level. These phases range from indifferen-

ce and opposition to sustainability issues, to a strategic and leadership in sustainable development.

However, we identified a gap in existing models, namely, their lack of adaptation to the ESG strategy, particularly, the governance dimension. Based on the work carried out in constructing the Best Practices Guide for Port Sustainability: an ESG Strategy, we created our port sustainability maturity model.

This model's main function is to help organizations in their process of diagnosing sustainability and providing subsidies for their strategic planning in the evolution for sustainability practices. Our model features four different levels:

Maturity 1: Basic

The Basic level includes port organizations that are still striving to meet all their legal obligations but have some pendency, such as the absence of an Environmental License and a Mutual Aid Plan (PAM). These ports generally do not have the institutionalization of the sustainability, as shows the absence of specific positions, sectors, and budgets for areas regarding the environment, sustainability, port-city relationship, institutional relationship, or community engagement.

Furthermore, sustainability is not included in their strategic planning, with no identified targets or indicators, nor are there variable compensation targets linked to sustainability. In short, these organizations do not have values or principles related to sustainability integrated into their organizational culture.

To progress, these organizations need to embark on a sustainability journey and consider the requirements and directions outlined in the Starting Point item of this Journey Guide.

Maturity 2: Conformity

These organizations already meet the minimum legal requirements for their operation related to environmental, social, and governance issues. They have no pending licenses and show an initial stage of institutionalization of sustainability.

However, the extent of sustainability in their culture and strategic planning is still dependent on the leaders who occupy management positions. Sustainability is not yet fully integrated into their culture and strategic planning.

These organizations have usually already embarked on a sustainability journey and have already implemented some of the requirements and suggestions outlined in the Starting Point item of this Journey Guide.

Maturity 3: Best practices

The Best Practices Maturity level includes organizations that have fulfilled all minimum legal requirements related to environmental, social, and governance obligations. These organizations have established specific departments or sectors dedicated to environment, sustainability, port-city relationship, institutional relationship, or community engagement, and proactively engage in implementing the 6 Ps of best sustainability practices: policies, plans, programs, projects, processes, and partnerships.

Sustainability is already integrated into their strategic planning, with specific targets and indicators. It is embedded in their organizational culture and reflects their values and principles.

These organizations are currently implementing the guidelines outlined in the Environmental, Social, and Governance Journey section of this guide.

Maturity 4: Leadership and innovation

These organizations have not only met all minimum legal, environmental, social, and governance obligations, but also have specific departments for environment, sustainability, port-city relationship, institutional relationship, and community engagement.

They voluntarily undertake the 6 Ps of best sustainability practices, which include policies, plans, programs, projects, processes, and partnerships.

Sustainability is already an integral part of their strategic planning, with specific targets and indicators. It is part of their organizational culture as they have values and principles explicit and associated with the theme.

They have already implemented the guidelines for the Environmental, Social, and Governance Journey, which are described in this section of the ESG Guide.

These ports represent the most advanced stage in national and international best practices of port sustainability. Sustainability is consolidated throughout the organization, independently of top management components. They have sustainability targets for variable employee remuneration, not just for top management. They are considered leaders, and innovation is also associated with sustainability.

These ports have already started implementing the Leadership Journey steps described in this Guide and have actions in partnership with their port ecosystem and value chain.

REFERENCES

ABC. **ESG Guide: best practices for banking**. São Paulo: ABBC, 2022. E-book.

AGU. **National Guide to Sustainable Procurement.** 4. ed. Brasília: AGU, 2021.

AIVP. **Commitment**. Le Havre, 2020. Available at: https://www.aivp.org/en/commitment/. Accessed on: Sept. 14, 2021.

AIVP. **Experiencing the port together!** the missions charter of a port center. Le Havre, 2019.

AIVP. Le Havre, 2020. Available at: https://www.aivp.org/en/acting--sustainably/port-center-by-aivp/what-is-the-port-center/. Accessed on: Dec. 07, 2022.

ALAMOUSH, Anas S.; BALLINI, Fabio; ÖLÇER, Aykut I. Revisiting port sustainability as a foundation for the implementation of the United Nations Sustainable Development Goals (UN SDGs). **Journal of Shipping and Trade**, vol. 6, no. 19, p. 1-40, 2021.

ALCOA BRAZIL. **ASG Performance**: Brazil 2020. [São Paulo]: Alcoa, 2020.

ALCOA. **Reinventing for a sustainable future.** Pittsburgh: ALCOA, 2021.

AMAGGI. **Sustainability Report 2020.** Cuiabá: Amaggi, 2020.

ANTAQ. **Environmental and waterway safety agenda**: 2021/2022. Brasília, DF: ANTAQ, 2021.

ARCELORMITTAL BRAZIL. **Sustainability Report 2021**: Together in Action. Belo Horizonte, 2021.

B3. **Guide to sustainability and ESG management in companies:** how to start, who engage and what to prioritize. São Paulo: B3, 2022.

BARDIN, Laurence. **Content Analysis**. São Paulo: Editions 70, 2011.
Baumgartner, RJ, & Ebner, D. **Corporate sustainability strategies: sustainability profiles and maturity levels.** Sustainable Development, 18(2), 76-89., 2010.

BMUB. **Step-by-step guide to sustainable supply chain management:** a practical guide for companies. Berlin: BMUB, 2017.

BRAZIL. **CONAMA RESOLUTION No. 01**, of January 23, 1986, Brasília, DF, 1986.

BRAZIL. **CONAMA RESOLUTION No. 237**, of December 19, 1997, Brasília, DF, 1997.

BRAZIL. [Constitution (1988)]. **Constitution of the Federative Republic of Brazil**. Brasília, DF: Presidency of the Republic, 1988. Available at: http://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm. Accessed on: Dec. 07, 2022.

BRAZIL. National Commission for the Sustainable Development Goals. **CNODS Action Plan 2017-2019**. Brasília, DF: Presidency of the Republic, 2017. Available at: http://www4.planalto.gov.br/ods/publicacoes/plano-de-acao-da-cnods-2017-2019/view. Accessed on: Jul. 15, 2021.

BRAZIL. **Law No. 7804 of July 18, 1989**. Amends Law No. 6938, of August 31, 1981, which provides for the National Environmental Policy, its purposes and mechanisms of formulation and application, Law No. 7735, of February 22, 1989; Law No. 6803, of July 2, 1980, and makes other arrangements. Brasília, DF: Presidency of the Republic, 1989. Available at: http://www.planalto.gov.br/ccivil_03/leis/l7804.htm. Accessed on: Mar. 01, 2022.

BRAZIL. Ministry of Infrastructure. **Ministry of Infrastructure sustainability agenda**: 2023-2026. Brasília, DF: Ministry of Infrastructure, 2022.

BRAZIL. Ministry of Infrastructure. **MINFRA sustainability agenda**: period 2020-2022. Brasilia, DF: Ministry of Infrastructure, 2020.

BRAZIL. Ministry of Infrastructure. **MINFRA Sustainability Guidelines.** Brasilia, DF: Ministry of Infrastructure, 2020.

BRAZIL. Ministry of the Environment. **National Environmental Licensing Plan**. Brasília, DF, 2022. Available at: http://pnla.mma.gov.br/estudos-ambientais. Accessed on: Mar. 01, 2022.

BROOKS, MR; CULLINANE, KPB; PALLIS, AA Revisiting port governance and port reform: A multi-country examination. **Research in Transportation Business & Management**, v. 22, p. 1–10, 2007.

CAMPBELL, A. Stakeholders: The Case in Favor. **Long Range Planning,** v. 30, no. 3, p. 446–449, 1997.

CAMPBELL, A. Stakeholders: the Case in Favor. **Long Range Planning**, v. 30, no. 3, p. 446–449, 1997.

CARGIL. **Annual Report 2020**. Sao Paulo: Cargil, 2020.

CARROLL, AB Managing ethically with global stakeholders: A present and future challenge. **Academy of Management Perspectives,** v. 18, no. 2, p. 114-120, 2004.

CIP. **Guide to environmental certification and sustainability reporting for ports of the americas**. Washington: CIP, 2020.

CODEBA. **Integrated sustainability report**. Saved: Codeba, 2021.

CODEBA. **Integrated sustainability report**: base year 2020. Salvador: Codeba, 2020.

COMPANHIA DOCAS DO RIO DE JANEIRO. **Environmental sustainability policy**. 3rd ed. Rio de Janeiro: Docks Company Rio de Janeiro, 2021.

COMPANHIA DOCAS DO RIO DE JANEIRO. **Management report 2020**. Rio de Janeiro: Docks Company Rio de Janeiro docks, 2020.

CUTRIM, Sergio Sampaio. Governance at the heart of ESG. In: CUTRIM, Sérgio Sampaio; ROBLES, Leo Tadeu (org.). **Manifest**: port ESG. São Luís (MA): Ed. from UFMA, 2022. E-book. P. 65-78.

DAMASCENO, Cristina Ribeiro. **Governance in the port cluster**: a case study of strategic decision-making in the Port of Salvador. Completion of course work (Bachelor of Economic Sciences) -- Federal University of Bahia, Salvador, 2009. Available at: http://www.repositorio.ufba.br:8080/ri/bitstream/ri/9741/1/CRISTINA %20RIBEIRO% 20DAMASCENO.pdf. Accessed on: Apr. 10, 2014.

DE LANGEN, P. Stakeholders, Conflicting interests and governance in port clusters. In : BROOKS, M.; CULLINANE, K. (ed.). **Research in Transportation Economics**. 1st ed. Oxford: Elsevier, 2006. v. 17. p. 457–477.

DOOMS, M.; MARCHARIS, C. A framework for sustainable port planning in inland ports: a multistakeholder approach. In: EUROPEAN CONGRESS OF THE REGIONAL SCIENCE ASSOCIATION, 43., 2003, Finland. **Annals** [...]. Finland: [sn], 2003.

ELKINGTON, John. Enter the Triple Bottom Line. In: HENRIQUES, Adrian; RICHARDSON, Julie (ed.). **The Triple Bottom Line.** London: Routledge, 2004. Chapter 1. Available at: https://www.johnelkington.com/archive/TBL-elkington-chapter.pdf. Accessed on: Mar. 01, 2022.

ELLEN MACARTHUR FOUNDATION. **Circular economy**. 2022. Available at: https://archive.ellenmacarthurfoundation.org/pt/economia-circular/conceito. Accessed on: Mar. 01, 2022.

ENSSLIN, Sandra Rolim; RODRIGUES, Kassia Toneiro ; YOSHIURA, Luiz Junior Maemura ; SILVA, Jessica Carvalho da ; LONGARAY, André Andrade . Organizational Performance Management and the 'Sustainability' of the Performance Evaluation System: A View Guided by the Integrative Review Perspective. **Sustainability 2022**, v. 14, 11005. DOI: https://doi.org/10.3390/su141711005

ESPO. **ESPO environmental report 2022**: EcoPortsinSigths 2022. Brussels: ESPO, 2022.

ESPO. **Green guide**: towards excellence in port environmental management and Sustainability. Brussel: ESPO, 2012.

ESPO. **Report of an inquiry into the current governance of european seaports**. Brussel: ESPO, 2011.

FERROPORT. **Local and institutional environmental agenda**. São João da Barra: Ferroport , 2021.

FERROPORT. **Ferroport sustainability strategy**: Rev. 00_17032021. São João da Barra: Ferroport, 2021.

FIESP. Environment Department. **ISO 14001:2015**: find out what changes in the new version of the standard. [São Paulo, 2015]. Available at: https://www.fiesp.com.br/arquivo-download/?id=198712. Accessed on: Mar. 01, 2022.

FIESP. **ISO 26000**: guidelines on social responsibility. [São Paulo, 2013]. Available at: https://www.fiesp.com.br/arquivo-download/?id=85061. Accessed on: 1 Mar. 2022.

FREEMAN, R. **Strategic Management**: A Stakeholder Approach. Boston: Pitman Publishing, 1984.

GERDAU. **2021 annual report**: people shaping the future. São Paulo: Gerdau, 2021.

GRI. **ESG as a strategy for business continuity in the 21st century**: perspectives of sustainability professionals and board members. Amsterdam: GRI, 2019.

GRI. **Glossary of GRI standards**. Amsterdam: GRI, 2022.

GRI. **Setting the agenda for the future**. Amsterdam, 2022. Available at: https://www.globalreporting.org/. Accessed on: Mar. 01, 2022.

GUBA, G.; LINCOLN, S. **Fourth generation evaluation**. [s.l.] Sage Publications, 1989.

Hepper, EL, de Souza, OT, Petrini, M. de C., Silva, CEL **Proposition of a maturity model for corporate sustainability. Acta Scientiarum**. Human and Social Sciences, v. 39, no. 1, p. 43-53, Jan.- Apr., 2017.

HIDROVIAS DO BRASIL. **Sustainability Report.** São Paulo: Waterways of Brazil, 2021.

HOYLE, Brian. Development dynamics at the port-city interface. In: HOYLE, Brian S.; PINDER, David A.; HUSAIN, M. Sohail (ed.). **Revitalizing the Waterfront. International Dimensions of Dockland Redevelopment**. London; New York: Belhaven Press, 1988. p. 3-19.

Hynds, E. J., Brandt, V., Burek, S., Jager, W., Knox, P., Parker, J. P., ...& Zietlow, M. **A maturity model for sustainability in new product development**. Research-Technology Management, 57(1), 2014, 50-57.

IBGC. **Corporate governance agenda**: proposals to the candidates for the Presidency of the Republic and the National Congress. São Paulo: IBGC, 2022.

IBGC. **Best practices for an ESG agenda in organizations**. São Paulo: IBGC, 2022.

IBGC. **Corporate governance**. São Paulo, 2022. Available at: https://www.ibgc.org.br/conhecimento/governanca-corporativa. Accessed on: Dec 07, 2022.

IBRAM. **Relationship guide socio-institutional support for the mining sector.** Brasilia, DF: IBRAM, 2022.

IPCC. **1.5°C Global Warming**. Brasília, DF: MCTIC, 2019.

ISEB3. **ISEB3 system**. [São Paulo], 2019. Available at: http://iseb3.com.br/. Accessed on: Mar 01, 2022.

Kirkwood, D. A., Alinaghian, L.S., & Srai, J. S. **A maturity model for the strategic design of sustainable supply networks**. Management, 28(5), 386, 2008.

LDC. **Sustainability report 2021**: transforming tomorrow today. Rotterdam: LCD, 2021.

LOOP.PORTS. **Circular economy network of ports:** mapping of EU ports. Valencia: LOOP Ports, 2020.

MACHADO FILHO, Haroldo. From the Millennium Goals to the Development Goals sustainability: lessons learned and challenges. In: LUCIANO, Bruno Theodoro (org.). **European Union, Brazil and the challenges of the sustainable development agenda**. Rio de Janeiro: Konhad Adenauer Stiftung, 2016. p. 87-108. Available at: https://www.kas.de/c/document_library/get_file?uuid=52f0fe62-b8eb-a8b5-1fa4-2f6897d455ae&groupId=265553. Accessed on: Aug. 08, 2021.

MACHADO, Alessandro Q. (coord.). **National Hiring Guide sustainable.** 4th ed. Brasília: AGU, 2021.

Mani, M., Lyons, K., & Sriram, R. **Developing a sustainability manufacturing model**. IMS Summer School on Sustainable Manufacturing. Avaliable at: http://ws680.nist.gov/publication/get_pdf.cfm?pub_id=906033. 2010. Accessed on: Aug. 08, 2021.

MOVIMENTO NACIONAL ODS. **The 5 Ps of Sustainability. 2021**. Available at: https://movimentoods.org.br/os-5-ps-da-sustentabilidade/. Accessed on: 15 Sept. 2021.

MRN. **Sustainability**: the pride of the present in every step towards the future. Porto Trombetas : MRN, 2021.

NOTEBOOM, T.; WINKELMANS, T. Stakeholder Relations Management in ports: dealing with the interplay of forces among stakeholders in a changing competitive environment. In: CONFERENCE OF INTERNATIONAL ASSOCIATION MARITIME ECONOMICS. **Annals** [...] Panama: [s. n .], 2002.

Ngai, E. W. T., Chau, D. C. K., Poon, J. K. L., & To, C. K. M . **Energy and utility management maturity model for sustainable manufacturing process**. International Journal of Production Economics, 146(2), 453-464, 2013.

OECD. **OECD guidelines on corporate governance for controlling companies' state**. [Paris: OECD], 2019. Available at: https://www.oecd.org/daf/ca/corporategovernanceofstate-ownedenterprises/40157990.pdf. Accessed on: Dec. 12, 2022.

OLIVEIRA, Carlos Tavares de. **Port modernization**. 5th. ed. São Paulo: Aduaneiras, 2011.

UN. **2030 Agenda for Sustainable Development**. Brasília, DF, 2015. Available at: https://brasil.un.org/pt-br/91863-agenda-2030-para-o--desenvolvimento-sustentavel. Accessed on: Mar. 01, 2022.

UN. **Our common future**. Brasília, DF, 2022. Available at: https://nacoesunidas.org/acao/meio-ambiente. Accessed on: Mar. 01, 2022.

UN. **Report of the World Commission on Environment and Development**: our common future. [New York]: UN, 1987.

ORNELAS, Ronaldo dos Santos. **Port/city relationship**: the case of Santos. 2008. Dissertation (Master in Human Geography) - Faculty of Philosophy, Letters and Human Sciences, University of São Paulo, São Paulo, 2008. Accessed on: May 5, 2014.

GLOBAL COMPACT. **Brazil Network.** 2022. Available at: https://www.pactoglobal.org.br/. Accessed on: Mar. 01, 2022.

PECEM INDUSTRIAL AND PORT COMPLEX. **Local environmental agenda:** 2020-2021. São Gonçalo do Amarante, 2020.

PECEM INDUSTRIAL AND PORT COMPLEX. **Sustainability report.** São Gonçalo do Amarante, 2020.

PEGADA ECOLÓGICA. Brasília, DF, 2022. Available at: https://www.pegadaecologica.org.br/. Accessed on: Mar. 01, 2022.

PETROBRAS. **Sustainability Report 2021**. Rio de Janeiro: Petrobras, 2021.

PIANC. **'Sustainable Ports':** a guide for Port Authorities Bruxelles: PIANC Secrétariat General, 2014.

PINTO, Aline Martins Arruda; CUTRIM, Sérgio Sampaio; ROBLES, Leo Tadeu; CASTRO, Italo Gabriel Almeida. Port sustainability: Brazilian public ports and the UN's 17 Sustainable Development Goals (SDDS). In: INTERNATIONAL PORT PERFORMANCE CONGRESS, 8., 2021, Florianópolis. **Annals electronics** [...]. Available at: https://2021.cidesport.com/anais-com-artigos-e-relatos-na-integra/. Accessed on: Dec. 07, 2022.

PORT AUTHORITY OF NEW SOUTH WALES. **Green port guidelines**: sustainable strategies for port developments and operations . Walsh Bay: Port Authority of New South Wales, 2017.

PORT OF IMBITUBA. **Institutional Environmental Agenda**. Imbituba: SCPAR Port of Imbituba, 2020.

PORT OF AÇU. **Sustainability policy**. São João da Barra: Porto do Açu, 2020.

PORT OF AÇU. **Sustainability report 2021**. São João da Barra: Porto do Açu, 2021.

PORT OF AÇU. **Sustainability report Porto do Açu operations**. São João da Barra: Porto do Açu, 2020.

PORT OF ITAQUI. **Environmental Agenda**: 2020/2021. São Luís: Porto do Itaqui, 2020.

PORT OF ITAQUI. **Sustainability Report 2020**. São Luís: Porto do Itaqui, 2020.

PORT ITAPOÁ. **Environmental Agenda 2020 to 2022**. Itapoá: Port of Itapoá, 2020.

PORT ITAPOÁ. **Global Compact Report 2021**. Itapoá: Port of Itapoá, 2021.

PORT SAO SEBASTIÃO. **Management report**. São Sebastião: Companhia Docas de São Sebastião, 2021.

PORTO SUDESTE. **Porto Sudeste do Brasil S. A. - Sustainability Report ESG Positioning for Society**, 2022.

PORTOCEL. **Annual report 2021**. Aracruz: Portocel, 2021.
GATEWAY. Sustainability report 2021. Navegantes: Portonave, 2021.

PARANÁ PORTS. **Management report 2020**. Paranaguá: Portos Paraná, 2020.

PORTS AUSTRALIA. **Learning practice**: port sustainability strategy development guide: approaches and future opportunities. [Sydney]: Ports Australia, 2020.

PROJECT MANAGEMENT INSTITUTE. **A Guide to Project Management Knowledge**: (PMBOK® GUIDE). 5th. ed. Pennsylvania: Project Management Institute, 2013. Ebook.

PWC. **ESG on Ibovespa**. PWC Brazil, 2022.

ROBLES, L. T. **The paths of sustainability and the ESG strategy**. In: CUTRIM, Sérgio Sampaio; ROBLES, Leo Tadeu (org.). Manifest: port ESG. São Luís: Ed. from UFMA, 2022. E-book. P. 16-32.

ROBLES, L. T.; LA FUENTE, J. M. **Reverse logistics:** a path to sustainability. Curitiba: Intersaberes, 2019.

SAMARCO. **Sustainability report 2021.** [Belo Horizonte]: Samarco, 2021.

SANTOS PORT AUTHORITY. **Institutional environmental agenda**: 2021-2023. Santos: Santos Port Authority, 2021.

SANTOS PORT AUTHORITY. **SPA sustainability policy**. Santos: Santos Port Authority, 2021.

SANTOS PORT AUTHORITY. **Sustainability Report 2020**. Santos: Santos Port Authority, 2020.

SCPAR PORT OF IMBITUBA. **Sustainability report**. Imbituba: SCPAR Port of Imbituba, 2021.

SCPAR. **Sustainability Report 2022**. Florianópolis: SCPAR, 2022.

SDOUKOPOULOS, Eleftherios; ANASTASIADIS, Nikolaos; TROMARAS, Alkiviadi ; BOILE, Maria. **Port environmental sustainability**: Best practice identification in Europe and the value of knowledge and experience-sharing. In: INTERNACIONAL CONGRESS ON TRANSPORTATION RESEACH: transport 4.0: the smart evolution, 9., 2019, Athens. **Proceeding** [...]. Athens: ICTR, 2019.

SYSTEM B. **Join the B Brasil movement**. São Paulo, 2022. Available at: https://www.sistemabbrasil.org/. Accessed on: Mar. 01, 2022.

Sloan, K., Klingenberg, B., & Rider, C. **Towards sustainability: examining the drivers and change process within SMEs**. Journal of Management and Sustainability, 3(2), 19, 2013.

SOCIETY FOR CORPORATE GOVERNANCE. **ESG implementation guide:** getting started. New York: Society for Corporate Governance, 2020.

SOUSA, José Raul de; SANTOS, Simone Cabral Marinho dos. Content analysis in search a qualitative way of thinking and doing. **Research and Debate in Education**, Juiz de Fora, v. 10, no. 2, p. 1396 - 1416, Jul., 2020. ISSN 2237-9444. DOI: https://doi.org/10.34019/2237-9444.2020.v10.31559. Accessed at: Mar. 01, 2022.

SUAPE. **Integrated report 2020**. Cabo de Santo Agostinho; Ipojuca: SUAPE, 2020.

SUAPE. **Sustainability Report 2019**. Cabo de Santo Agostinho; Ipojuca: SUAPE, 2019.

SUAPE. **Sustainability report on GRI templates**. Cabo de Santo Agostinho; Ipojuca: SUAPE, 2021.

SUZANO. **Annual report 2021**. São Paulo: Suzano, 2021.

TCFD. **Task Force Recommendations for Disclosures financial related to climate change**. [S.l.]: TCFD, 2017.

TERNIUM. **Sustainability Report 2020.** Rio de Janeiro: Ternium, 2020.

THE GLOBAL COMPACT. **Who cares wins**: connecting financial markets to a changing world. Bern: Swiss Federal Department of Foreign Affairs; United Nations, 2004.

TRANSPETRO. **Annual report integrated 2021**. Rio de Janeiro: Transpetro. 2021.

USIMINAS. **Annual sustainability report 2021**. Belo Horizonte: Usisminas, 2021.

VALE. **Sustainability Policy**. Rio de Janeiro: VALE, 2016.

VALE. **Report Integrated 2021.** Rio de Janeiro: VALE, 2021.

VEENSTRA, E. M., ELLEMAERS, N. **ESG Indicators as organizational performance Goals**: do rating agencies encourage a holistic approach? **Sustainability**, v. 12, no. 24, 10228, 2020. Available at: http://www.mdpi.com/journal/sustainability. Accessed on: Mar. 01, 2022.

VERHOEVEN, Patrick. **European port governance**: report of an inquiry into the current governance of European seaports. Brussels: ESPO, 2011.

VLI. **Sustainability Report 2021**. Belo Horizonte: VLI, 2021.

WBCSD. **ESG Disclosure Handbook**. Geneva: WBCSD, 2019.

WIEGMANS, Bart W.; LOW, Erik. **Changing port–city relations at Amsterdam**: a new phase at the interface? **Journal of Transport Geography**, vol. 19, no. 4, p. 575-583, Jul. 2012.

WORLD BANK GROUP. **Environmental, health, and safety guidelines for ports, harbors, and terminals**. Washington: WORLD BANK GROUP, 2017.

WORLD BANK. **Who Cares Win**: connecting financial markets to a changing world. Washington: World Bank, 2004. Ebook. Available at: https://documents1.worldbank.org/curated/en/280911488968799581/pdf/113237-WP-WhoCaresWins-2004.pdf. Accessed on: Mar. 01, 2022

WORLD ECONOMIC FORUM. **The global risks report 2022**. 17th ed. Cologny: World Economic Forum, 2022.

WPSP. **World ports sustainability report**. [Minato-ku]: WPSP, 2020.