

# EMERGENCY PREPAREDNESS PROJECT

How we were prepared for the worst  
oil spill in Brazilian history

2020 WPSP Award  
Safety and Security

December, 2019





# The worst oil spill in Brazilian history and one of the largest environmental disaster ever recorded

Along with the oil, several questions remain unanswered

- Where did the oil originate?
- How might it have happened?
- Who is responsible?



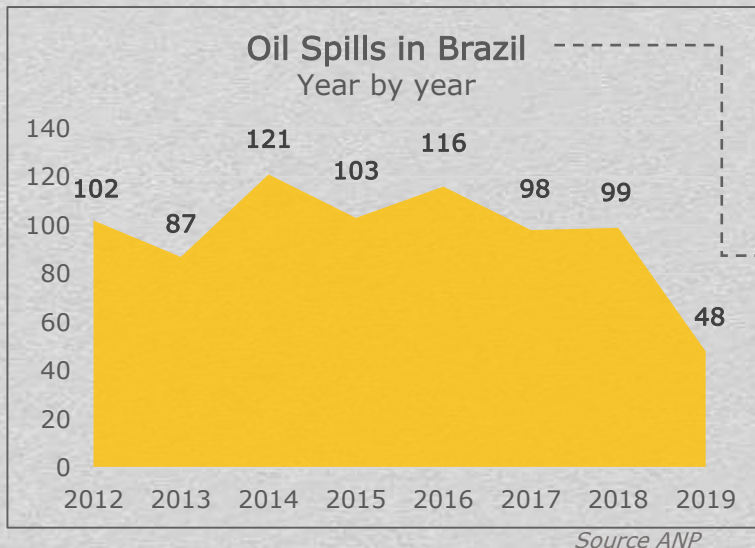
This oil is Venezuelan. Its DNA is Venezuelan. This is certain.

Brazil's Environmental Protection Agency

## Potential causes

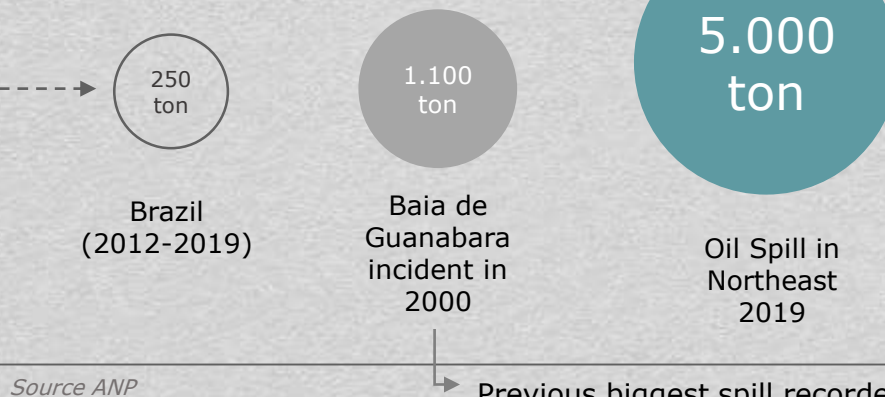
- Tanker accidental spill
- Irregular discharges
- Irrecoverable loss of containment
- Irregular bunkering activities during sailing
- Loss of containment in O&G operations at southern Bahia

Volume 20 times larger than the sum of all oil incidents reported between 2012 and 2019



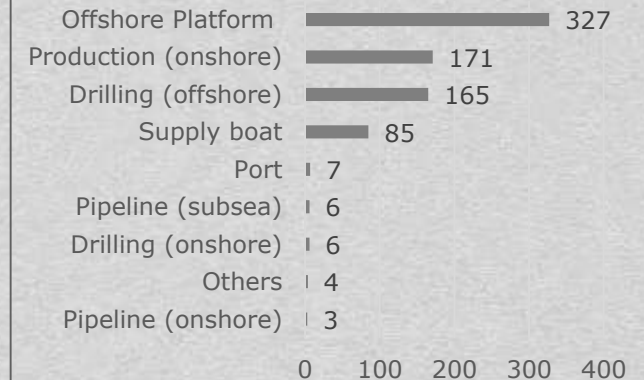
## Oil spills comparison

Unprecedented event in the country's history



Previous biggest spill recorded until 2019

## Oil Spills by Origin 2012 to 2019





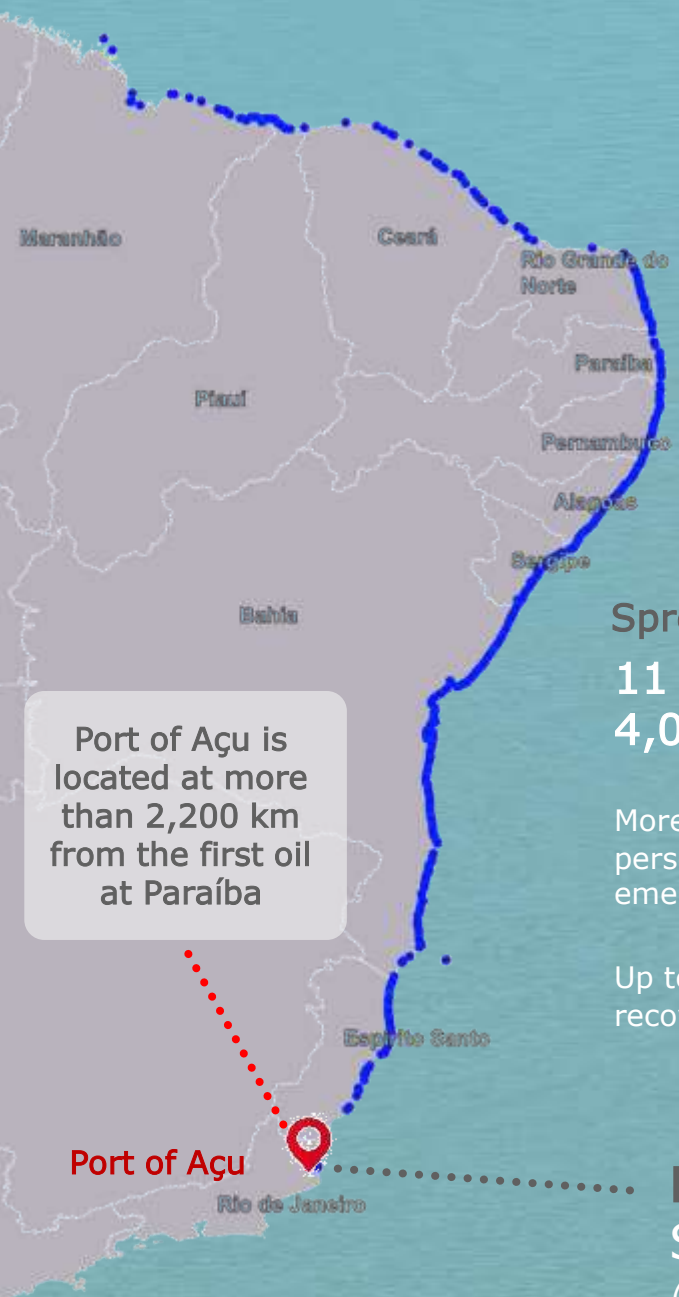


## The country faced huge challenges to respond adequately and mitigate damages



- Unknown source
- Characteristics of the oil (very degraded) - resources and procedures available proved not to be effective or adequate
- Lack of guidance for clean-up activities by volunteers – in the first days, local communities engaged in the response with poor alignment with the national contingency plan





Port of Agu is located at more than 2,200 km from the first oil at Paraíba

**Spread and clean-up**  
**11 States** and more than **4,000 km** of the coast affected

More than **13,000** military personnel involved in the emergency response

Up to **5,000 tons** of oil waste recovered

**Further south location**  
**São João da Barra/RJ**  
(Around 17km north of the Port)



## The event timeline

08/30	First spots of oil found at Paraíba
09/02	Governement Crisis Management set up
09/11	29 places* affected (5 states)
09/30	113 places* affected (8 states)
10/25	Rio de Janeiro State Crises Management Team first meeting
10/30	283 places* affected (9 states)
11/08	Oil reaches Espírito Santo state
11/13	546 places* affected (10 states)
11/23	Oil reaches Rio de Janeiro State
11/30	834 places* affected (11 states)
12/20	980 places* affected (11 states)

*Monitoring and Evaluation Group (GAA), formed by Navy, Federal Environmental Agency and National Petroleum Agency*

- Monitoring
- Reporting
- Response strategy (clean-up, fauna, waste management)

\* 1 place = 1 km directly affected by the oil

# Ports' reaction along the coast

- Direct response – resources and emergency plans triggered
- Support to federal and local government
- Donation of PPE for volunteers
- Emergency drills



The incident shed light on the challenges related to the ability to respond to major oil incidents and reinforced the important role that ports can play in emergency preparedness and response actions.



# Port of Açu is located at the southeast region of Rio de Janeiro State

Strategically located and relying on terminals that provide specialized offshore support to the main international oil companies, the Port of Açu proved its capacity to be one step ahead, engaging preventively through integrated actions that demonstrated in practice that the port sets safety standards that can enhance the effectiveness of oil response frameworks and cooperation

## Oil spill response at the Port:

- Integrated coordination of the Emergency Plans between Terminals and Port Administration
- Operational base integrating and optimizing the procedures and resources available
- Use of ICS (US Coast Guard Incident Command System) methodology for Emergency Management
- Actively involving all port users and the port community
- Continuous multi-stakeholder dialogue and communication



# EMERGENCY PREPAREDNESS PROJECT



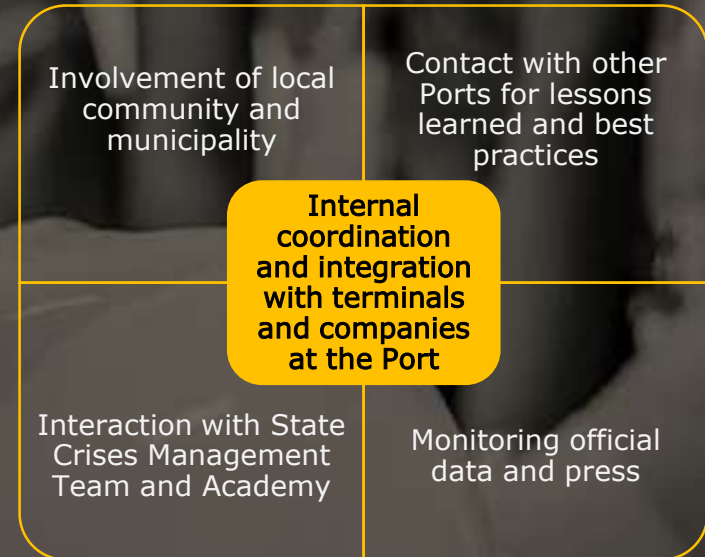
The Port Administration set up a Project to define strategy, priorities and lines of action to deal with the incident at the Port area

## Internal coordination

- Integration between terminals and internal stakeholders
- Best response strategies / Integration with companies at the Port
- Internal Reports

## External relations

- Monitoring official data, academic publications and press
- Integration with State and local government
- Contact with other Ports in Brazilian Coast
- Local community engagement



Priorities to the emergency response:

1. People
2. Environment
3. Continuity of Port's operations



# Taskforce for monitoring and readiness

*Along with other ports, Açú was part of the task force in charge of managing the emergency. Proactive drills and community training as well as wildlife monitoring and drone flights were some of the efforts implemented as part of this dedicated emergency response project*

- Monitoring daily news and official data
- Daily internal report
- Monitoring 62km of local shoreline (using our Turtles Monitoring Program)
- Mobilization of protection equipment for clean-up activities
- Emergency drills and technical training for both Port employees and local volunteers
- Daily drone monitoring around port infrastructure
- Participation at Rio de Janeiro State Crises Management Team (GTE), along with environmental federal agency, Federal University (COPPE/UFRJ), Petrobras and the Navy
- Porto do Açú was foreseen as a strategic stakeholder to contribute with unique infrastructure and technical expertise on the state level



**Only a small quantity of oil was found at Rio de Janeiro**

- 11/22: 300g of oil were found at Grussaí beach (~ 17km of the port)
- 11/24: 20g of oil at Santa Clara beach (~30km of the port)

Since November 24<sup>th</sup>: stabilization of the oil spread at southeast region – only 2 registers with insignificant amount



- 09/02** Start of Press and Official Data monitoring
- 10/22** Port of Açú Emergency Preparedness Project first meeting
- 10/24** First Internal Daily Report
- 10/25** Port of Açú participation at the first meeting of Rio de Janeiro State Crises Management
- 10/26** integration with daily turtles monitoring for identification of oil at the local shoreline
- 11/01** Emergency Drill and clean-up exercise involving all terminals in operation at the Port and Environmental Agency
- 11/11** Port of Açú hosts training for 14 municipalities
- 11/23** Start of the daily drone monitoring around Port
- 11/30** End of daily monitoring – beaches and drone
- 12/09** End of the Project. Only official data monitoring remains



# Drills integrating all terminals and clean-up techniques



Port of Açu hosts a major training for 14 municipalities



Drone monitoring around Port's infrastructure



Shoreline monitoring



# Involving local community and fishermen

The Port Administration together with Companies and Terminals in operation at Port of Açú as well as the Navy, promotes lectures and campaigns to reinforce safety procedures and the relationship with the Port

Lectures were given to spread information and guidelines about the event:

- Monitoring
- Clean-up
- Reporting and communication with the Port





# The **Values** shared at Port of Açu together with the **SDG agenda** were the motivators for the Project development and implementation

## Safety & Security

Minimize/eliminate operational risks to people, facilities and the environment, ensuring everyone's integrity



## Efficiency

High quality service delivered on time, with minimal use of resources



## Port of Açu Values

## Sustainability

Actions that create social-economic-environmental benefits for stakeholders that stand the test of time



## Integrity

- Transparency
- Ethics
- Good faith in relationships with stakeholders
- Clear agendas



## Collaboration

- Shared challenges and opportunities
  - Solutions that are built together
  - Joint actions taking into account what is best for everyone involved



**8** DECENT WORK AND ECONOMIC GROWTH



**9** INDUSTRY, INNOVATION AND INFRASTRUCTURE



**11** SUSTAINABLE CITIES AND COMMUNITIES



**17** PARTNERSHIPS FOR THE GOALS



# Emergency Preparedness Project in numbers



10

Companies



14

Municipalities



62 km  
of beaches  
monitored daily



> 1,500  
PPE mobilized



90  
fishermen



2 clean-up drills  
And 1 Integrated  
exercise



# Integration for a Safer Port

Integration between Companies aims placing Port of Açu one step ahead, engaging preventively through collaboratively actions to set safety standards for better and safer operations

- ✓ HSE Committee
- ✓ Safety Alerts
- ✓ Safety Bulletins
- ✓ Safety Campaigns
- ✓ Trainings





# What did we learn from this project?

Emergency Preparedness Project reinforced the importance of integrated actions between all stakeholders involved in managing a major emergency, and the relevant contribution from ports in terms of preparing for an efficient response to oil spills

- Integration between terminals and companies at the port
- Previous involvement of local community as part of the response strategy
- Common Incident Command System Methodology to facilitate emergency response management
- Port Administration sponsorship to reinforce safety and integration
- Re-evaluate external events causing relevant impacts in Port operations – Risk Assessment review
- Investments in training and drills – be prepared is the best approach

*As connecting nodes between land and sea, ports are a key stakeholder for synergistic collaboration in response actions, as they consolidate significant emergency resources, act as support base for sea operations and are the ideal place to gather those involved in emergency management.*