

Environmental Impacts of the Oil and Gas Production Chain



- Leakage of Chemicals and Hydrocarbons
- Change in air quality by atmospheric emissions
- Contribution to the Greenhouse Effect
- Change in water quality by disposing of sanitary effluents.
- Generation of solid waste
- Change in water quality by discarding produced water
- Disturbances in the Bird Fauna
- Collision with Cetaceans
- Change in the benthic community
- Increased demand on port and airport infrastructure due to demand for goods, services and equipment.
- Interference with artisanal and industrial fishing activities due to the presence and transit of support vessels.
- Introduction of invasive exotic species (ISS)
- Change in water and sediment quality
- Creation of restricted areas for artisanal and industrial fishing.



Orange Cup Coral



The orange cup coral (*Tubastraea spp.*), originally from the Pacific Ocean, was initially observed in the 1980s on oil rigs in the Campos Basin, in Rio de Janeiro. So far the orange cup coral has invaded rocky shores of the coast of five Brazilian states: Rio de Janeiro, São Paulo, Santa Catarina, Espírito Santo and Bahia. Subsequently, it was reported by IBAMA on oil rigs in Sergipe and, more recently, on oil rigs in the Abrolhos Archipelago in the state of Espírito Santo.

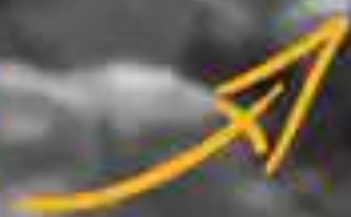
The orange cup coral modifies its own environment, enhancing and promoting its permanence, producing harmful chemicals and excluding native fauna and flora. Orange cup coral has also been observed killing native coral species, some even endemic to Brazil, competing with species of economic value, such as mussels, affecting primary and coastal productivity (fisheries and sea resources), thus harming one of our main food sources.





Divers Fight Orange Cup Coral Invasion in Alcatrazes

Esse é o
coral-sol



Biotic Environment of the Campos Basin



Coral Bank

Lophelia pertusa

Deepwater coral reefs:

- 1) Normal occurrence between 550 and 1,200 m
- 2) Important for maintaining biodiversity

One of the leading cold water reef builders



Saint Peter and Saint Paul Archipelago



What are the negative environmental impacts of oil production?

Emission of
combustion gases

Change in
Air quality

Disposal of produced
water, sanitary sewage
and food scraps

Change in
Water quality

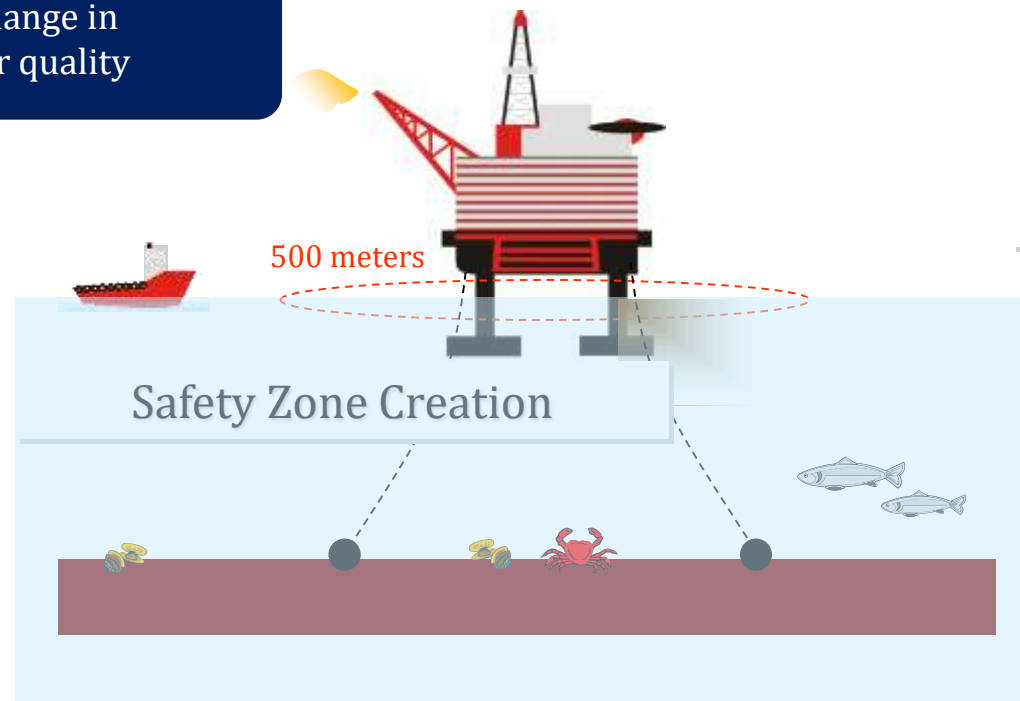
Interference with
marine life

Support boat
transit

Interference
in fishing activity

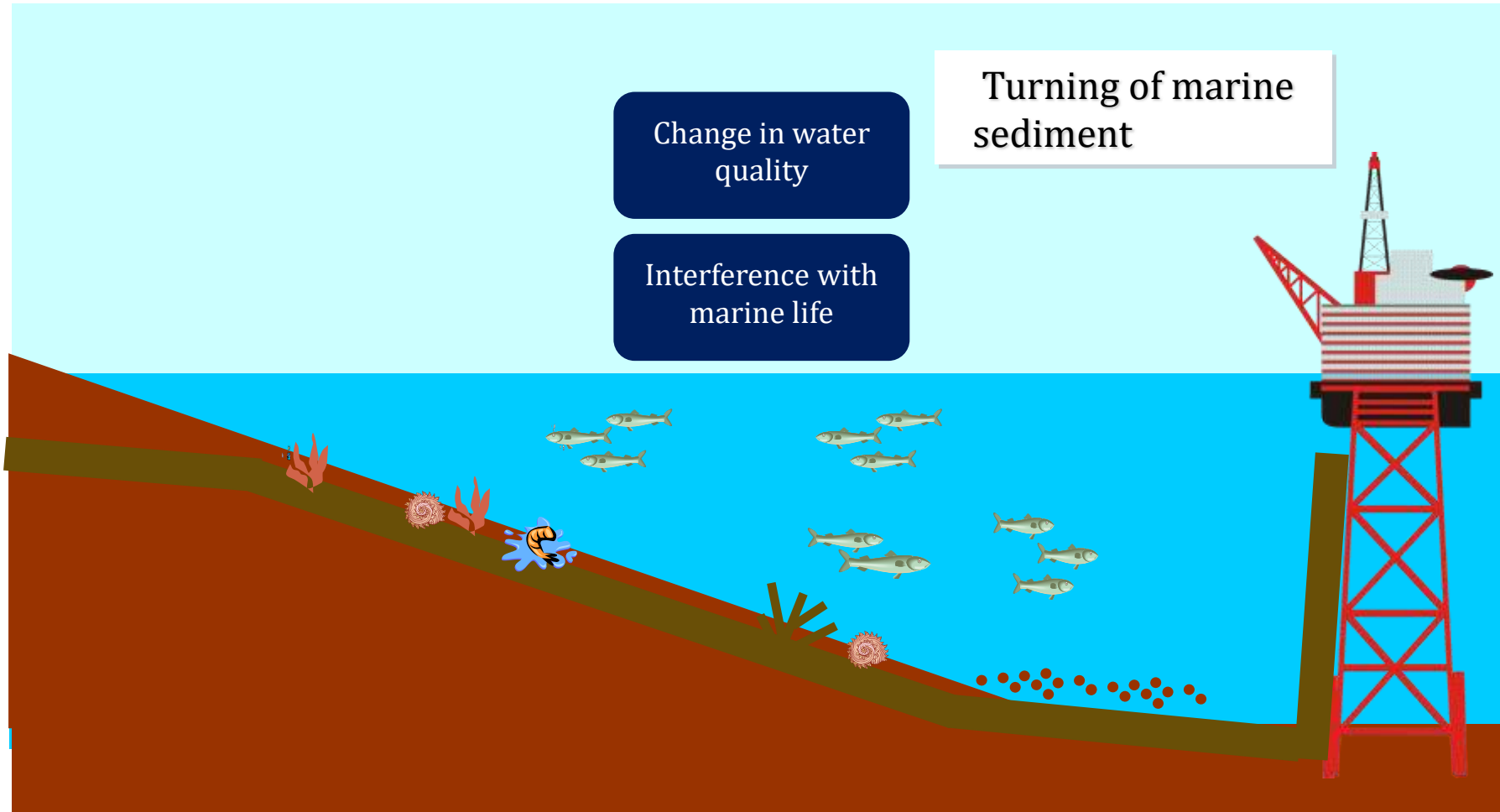
Generation of
solid waste

Change in soil
quality



Installation of Rigs and Ducts

What are the negative environmental impacts?



Socioeconomic Environment of the Campos Basin

- Tourism (important source of employment and income generation)
- Greater flow of tourists - summer and long holidays
- Production of oil and natural gas (generation of direct and indirect jobs)
- Increase in the collection of royalties and taxes
- Population growth in the municipalities in the area of influence (migrations)



Socioeconomic Environment of the Campos Basin



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P E R E N C O



Thank you