

Oceanographic Research Institute (ORI) position statement

Oceanographic Research Institute (ORI) position statement on prospecting, exploration and extraction of non-renewable resources, particularly hydrocarbons (oil and gas), in marine and coastal environments off the South African east coast.

Why are we issuing this statement?

ORI is frequently approached for comment on the potential impacts on the marine environment of proposed surveys for non-renewable resources such as oil and gas. Although we are a stakeholder, we do not consider ourselves to be an Interested and Affected Party (as defined in the National Environmental Management Act) for such activities – instead, we are in the business of offering informed, objective advice to decision-makers when we consider that our institutional knowledge is appropriate, and that our inputs will be considered.

Background

ORI recognizes that South Africa is currently heavily reliant on non-renewable resources, and that unemployment is a serious challenge for many South Africans. Operation Phakisa is a government initiative which hopes to address these challenges by increasing the contribution from the Blue (= marine) Economy. ORI participates in Operation Phakisa through technical contributions to the Governance component, using our scientific knowledge for input to Marine Spatial Planning (i.e. identifying which activities are appropriate for marine and coastal environments off our coast). We know that many of the marine and coastal habitats off the South African east coast are unique and support a high ecological diversity, much of which is not found elsewhere. Deep-water habitats (> 500 metres), in particular, remain largely unexplored ecologically, so we do not know exactly what occurs or what ecological processes take place there. South Africa has signed several international agreements in which we undertake to provide ongoing protection for marine and coastal environments – not only for our benefit, but for humankind. As a country we are still a long way from meeting many of these commitments and obligations.

Our position

Almost the entire area of South Africa's offshore territory (EEZ) is under lease for oil and gas exploration. Surveys are currently underway on the east coast, with the intention of drilling wells if hydrocarbon potential is located. Internationally, seismic surveys have been demonstrated to have negative impacts on a range of marine organisms, from smaller creatures which live

in sediments or as plankton, and larger animals such as fishes and marine mammals. We have particular concerns about the risks of drilling for oil, given that our coast is influenced by one of the fastest-flowing oceanic currents in the world. This Agulhas Current is not static – it has meanders up to 100km in width, and while it generally flows from north to south, current reversals are not uncommon, particularly in deep water. Large-scale eddies passing by complicate the flow, with offshore water frequently reaching our coast. The power of the current is such that attempts to contain any accidental spillage or normal operational spillage would likely be unsuccessful. We have recently seen graphic evidence of this, with the spreading of plastic nurdles from Durban Harbour along the entire coast of KZN and the Eastern Cape within days of their being spilled. While, internationally, the risk of a catastrophic blowout (= large-scale oil spill) is rated as very low by environmental impact assessments, this does not take into account the increased risks posed by the harsh, unique, physical environment found off the KZN coast. Unique coral reefs in the iSimangaliso World Heritage Site, our numerous estuaries, sensitive rocky shores, various recreational activities, and commercial fisheries on the Agulhas Bank – all of these are potentially at risk. Importantly, the potential impacts of developing and running shore-based facilities for the processing and transport of oil and gas, should they be found in viable quantities, have not yet been considered.

It is our opinion that the best way forward for environmental sustainability and local job creation is to expand technology which makes use of renewable energy. The global market is moving away from fossil fuels given the potentially catastrophic effects of human-induced climate change. Indeed, if South Africa and the world are to meet the goals set by the Paris Agreement of limiting global warming to less than 1.5°C, it is reliably estimated that a third of oil reserves, half of all gas reserves and 80% of known coal reserves should remain unused. We thus consider that the potential short-term, non-sustainable benefits to be gained from oil and gas are largely outweighed by the environmental risks posed by exploring for, and using these non-renewable energy resources.



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