

What South Africa can do to harness a neglected resource - its oceans

By [Heather Nel](#)

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The South African government plans to use the potential of the oceans economy to address the challenges of [poverty](#), [unemployment](#) and [inequality](#). The ocean covers 70% of the earth's surface and is an important source of food, energy and minerals.



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In Africa, South Africa is uniquely bordered by the ocean on three sides. With the inclusion of Prince Edward and Marion islands in the southern ocean, the coastline is about 3 924 km long. This is equivalent to the distance between Johannesburg, South Africa's biggest city, and Kampala, the Ugandan capital.

South Africa is also located along one of the busiest international shipping trade routes. This makes it an ideal halfway station for international trade.

This opportunity has not been harnessed. With over [9 000 ships](#) coming in and out of the country's ports every year, it is concerning that only one is registered with South Africa.

An [analysis](#) of South Africa's ocean economy estimates that the ocean has the potential to contribute R177 billion to the country's GDP, while creating up to one million new jobs by 2033. These growth levers reflect at least [4% annual growth](#) in both GDP contribution and job creation.

But these ambitious targets cannot be realised without increasing the pool of skills available to the maritime industry. Various strategies are required to grow South Africa's blue economy. These are being developed under an initiative called [Operation Phakisa](#). It covers four key areas, namely:

- marine transport and manufacturing;
- aquaculture;
- offshore oil and gas; and
- marine protection and ocean governance.

Phakisa means "hurry up" in Sesotho. It highlights the urgency of delivery.

What needs to be done

Plans have been drawn up to address the skills gaps. Over a five-year period, 2 550 vocational college graduates will be trained in scarce and critical trades. Over 18 000 learners will be trained as artisans, semi-skilled workers and professionals. About 1 200 ratings and 700 officers will be trained per year to meet the target of 12 000 seafarers by 2019.

This will require the availability of training berths for seafarers to get the necessary sea-time on a sea-going commercial vessel to complete their qualifications. This is typically obtained from trading vessels that are registered in any particular country.

But there is a lack of South African flagged ships and foreign shipping companies are not obliged to take on South African cadets. This has presented a huge challenge in securing cadetship berths for South African seafarers. A national intervention is required to ensure that seafarers have access to a centrally managed fleet of vessels which can be used as training platforms.

The Finnish model provides an interesting example of how this can be achieved through a centralised maritime "[apprentice mill](#)". This coordinates the placement of all seafarers on vessels for the on-board training phase. The maritime apprentice mill serves as a link between maritime education providers and ship owners. The most important task of the mill is to co-ordinate training places and inform educational institutes and ship owners of the seafaring apprentice situation.

Attention should also be devoted to addressing a range of other blockages. These would include:

- stimulating learner interest in maritime studies through a comprehensive career advising strategy from basic to higher education levels;
- improving the capacity at technical and vocational education and training colleges ([TVET](#)) and universities to expand their maritime programme offerings;
- investing in maritime education infrastructure and equipment; and
- promoting closer cooperation between educational providers and the maritime industry.

Start with the basics

Basic education is important in stimulating a national maritime consciousness in a country which has been historically terrestrial and land-based in its thinking. The Department of Basic Education has recognised this. It has included subjects such as Maritime Economics and Nautical Science at selected high schools as part of its Focus Schools [initiatives](#). Educator development and industry exposure, as well as clear guidelines on curriculum content, will be key to the success of this strategy.

TVET colleges produce artisan skills required for maritime manufacturing, as well as the vessel construction and repair

industry. But there are no TVET colleges involved in maritime training beyond the basic production of artisans. To address this, there is an initiative underway to assist six colleges to pilot maritime training programmes for ratings and marine engineering.

[Research](#) shows that marine and maritime studies appear to exist in isolated pockets of excellence at selected universities. No single university in South Africa can claim to be a leading provider in responding to the skills development needs of the blue economy. Qualifications are needed for a wide range of maritime sub-sectors including:

- shipping, logistics and transport;
- vessel building and repair;
- aquaculture and fishing;
- off-shore energy and mining;
- tourism and leisure;
- disaster management; and
- maritime business services and law.

Learning from the best

South Africa can learn from leading maritime nations such as Norway with its strategy known as ["blue growth for a green future"](#). This strategy incentivises the establishment of local, regional and global maritime clusters. Maritime industry experience is linked with research-based knowledge from universities to stimulate innovation for the benefit of the blue economy.

South Africa has set up a special institute to drive a pro-blue economy programme. The South African International Maritime [Institute](#) was launched to assist government and other partners in coordinating maritime education, training and research nationally.

It is hosted by the [Nelson Mandela Metropolitan University](#). Its vision is to serve partner education and training providers and the local maritime industry in skills development and innovation.

The institute will not award any qualifications itself. Rather, it will provide support to ensure that these are developed and offered through partner public and private providers. It will start by establishing and strengthening maritime clusters in the major regions across the country to improve the national coordination of maritime education and training.

This enabling partnership between government, industry and educational providers needs to become a lived reality in South Africa. This will ensure that maritime skills development and innovation act as a catalyst for sustainable growth through the country's oceans.

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