Innovation is the key to our maritime security

SECURITY MATTERS

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With its very long coastline fronting the Indian and Atlantic Oceans as well as the Mediterranean Sea, Africa has massive security issues with piracy as well as illegal fishing. How can the continent's seas be secured in the most pragmatic, efficient and cost-effective manner? Eric Ichikowitz, Vice President of Paramount Group, argues that blanket approaches will not work. Instead, a hybrid mix using African innovation is the most affordable solution.

A frica's maritime domain is vast, with far-ranging security challenges on an almost individual state basis. Arguing for a blanket solution to all maritime security issues is unrealistic, as it is simply not in the interest of every African country to address every maritime security issue.

While policy frameworks such as the 2009 Djibouti Code of Conduct are useful in creating the legal highway for good practice, it is the 'practice' itself that needs careful attention.

In this way, the Djibouti Code of Conduct runs into challenges. How useful is a treaty allowing for intelligence sharing and cooperation where one country is focused on combating illegal fishing and the other is more concerned about piracy? To complicate matters, not all African militaries possess equally proficient intelligence-sharing technologies and expertise.

Overcoming this issue is critical for African coastal nations. Using policy as an argument for maritime security solutions is akin to using a political sledgehammer where a specialised set of scalpels is required. And it is in this regard that African nations can do much in their own shipyards.

Navies, ministries, and indeed fisheries all depend on a remarkably simple formula for maritime security: ships at sea, eyes on the water, and planes in the sky. It's a simple list, but it is also an incredibly expensive one.

Peeling back the policy and peering into the practices of navies and security forces in Africa, there is a worrying tendency to purchase foreign vessels and equipment that are not optimally suited for the exact requirements of the continent. Acquiring old Coast Guard vessels or creating a fleet from civilian vessels is all well and good, but often the tool does not mirror the security threat posed. Acquiring obsolete frigates and similar class vessels in maritime regions where more sophisticated surveillance systems are required is a case in point.

This is a critical factor, because the threats faced by littoral nations are often sophisticated ones. Illegal fishing vessels, for example, often deploy false AIS transponders aboard buoys to confuse radar tracking as to their whereabouts. A tracked vessel just outside territorial fishing waters could in fact be well within, illegally exploiting fishing grounds. This has long plagued large parts of Southern Africa, for example.

On the piracy front, attackers often utilise radio networks and the cover of night to board targeted shipping, either to rob or kidnap the crew and vessel. For an aircraft or ship without adequate night surveillance equipment and training, the

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criminals may as well be invisible.

If the problem is a lack of ships at sea, eyes on the water and planes in the sky, simply procuring more of the above in a hurried fashion is not enough to match the threat that is evolving in African oceans. There is little budget to execute the above well, even in larger naval services such as Nigeria or South Africa.

When combined with the sizeable training and recruitment demands of fielding larger navies and putting massive vessels at sea, the impossibility of the task becomes apparent. Namibia's new-old vessel, the NS Elephant, requires roughly as many sailors to crew as are currently enlisted in the entire Namibian navy. It is here, then, that

Below: Crew members of Canadian helicopter Sea-King, from the *HMCS Fredericton*, at work during a security patrol also involving military vessels in a NATO-led anti-piracy mission in the Gulf of Aden

the solution must and should rely on African shipbuilders.

This is not to say an approach of duplicating obsolete and varied vessels should be pursued. Rather, an innovative blend of off-the-shelf (OTS) equipment and multi-role platforms that are designed and developed by Africans for African requirements could shift the asymmetry in the continent's maritime security back in the states' favour.

Indigenous ocean-monitoring capability

For example, littoral nations from Tanzania down to South Africa, and indeed even in the West Africa maritime domain can create an indigenous ocean-monitoring

capability at a fraction of the cost of external navies.

This is because unlike NATO and other large military groupings abroad, African states need not maintain a large conventional naval threat as a strategic deterrence from superpowers. Rather it can proceed with the business of securing its maritime resources from illegal fishing and piracy. This means unmanned long-range seaborne drones instead of far-reaching and costly airframes. It means locally-produced multi-role offshore patrol vessels instead of second or third-hand platforms imported from a foreign, and often much costlier, supplier. Light aircraft equipped with sensors rather than large airframes that cost too much to procure and even more to maintain.

All the above is possible within Africa. Maritime Robotic Platforms (MRPs) are already performing valuable research in Africa, run and piloted by Africans. In the security context MRPs have already shown a capability in acting as a long-range 'tripwire', wherein several MRPs are laid in formation and used as a low-cost, long-range early warning system. Local shipbuilders already have a proven success record in creating durable and effective vessels to police local waters. And in terms of aviation, the alternative to expensive foreign maritime surveillance aircraft must be adapted locally. With a little creativity, this can be achieved cost-effectively.

Will this approach provide a foolproof system of achieving good order at sea on the level of larger conventional navies? Almost certainly not. But it will achieve a level of parity in targeting illegal fishing and piracy that can yield significant improvements. A hybrid maritime security strategy using local innovation at a fraction of the cost is both a realistic and optimal objective for good African maritime security.

*The Djibouti Code of Conduct concerning the Repression of Piracy and Armed Robbery against Ships in the Western Indian Ocean and the Gulf of Aden was signed on 29 January 2009 by 20 African and Gulf states.