Building a regional response against environmental security threats in the Indian Ocean

Dr David Brewster
National Security College
Australian National University

Building a regional response against environmental security threats in the Indian Ocean

1. Environmental security threats in the Indian Ocean
2. Interaction of geo-environmental and geo-strategic challenges
3. Building regional responses to environmental security threats

1. Environmental security threats in the Indian Ocean region

- The IOR and the Pacific are epicentres for a range of natural occurring hazards in the world, but it is also one of the regions with the least capacity to respond.
- Climate change and other human interactions are significantly increasing existing vulnerabilities. Can contribute to:
  - cross-border migration
  - internal instability or intra-state insurgencies
  - terrorism or even cross-border conflict
  - climate-induced resource competition can also increase tensions within and between states.

Some key environmental security threats in the Indian Ocean

Tropical cyclones/severe weather events

- Historically a major source of death and destruction across the Indian Ocean. In the Bay of Bengal area tropical cyclones have routinely exacted near apocalyptic death tolls from the shallow farming and fishing settlements.

- The Intergovernmental Panel on Climate Change (IPCC) states that it is likely that the frequency of the most intense storms will increase substantially.

Rise in Sea Levels

- Sea level rises are likely to lead to increases in the frequency and severity of flooding events, when combined with increases in the severity of storms and ground subsidence, resulting in significant losses of coastal ecosystems.

- For some island states, a sea level rise is an existential issue.

- Sea level rises/storm surges could have a dramatic impact on Bangladesh. Global Military Advisory Council on Climate Change: a 1m rise in sea level would inundate around 17% of Bangladesh's land area, directly affecting around 15 million people, and a 1.5m rise would affect around 18 million people.

- The likelihood of climate-related cross-border population displacement is not clear. IPCC: extreme weather events displace populations in the short term because of their loss of place of residence or economic disruption. But only a proportion of displacement leads to more permanent migration

Decline in fish stocks

- Potential for a significant decline in fish stocks across the Indian Ocean as a consequence of:
  - overfishing by local and extra-regional fishers, acting both legally and illegally
  - climate-related changes in the marine environment, including due to acidification, marine heatwaves and hypoxic areas, as well as marine pollution.
- Many IO states rely heavily on fish as a source of income and as a major source of animal protein. According to the FAO, for Indonesia, for example, fish contributes to 54% of total animal protein. Fishing is also a major contributor to employment.
- Overexploitation from legal and IUU fishing, by both local and extra-regional fishers. This may be exacerbated in unpredictable ways by climate change and other human impacts, including changes to ocean currents, marine heatwaves, ocean acidification and pollution.
- For countries with high reliance on fish, the decline in resources could contribute towards economic dislocation/decline in living standards, violent extremism, political instability and population movements.
- Competition for fish resources may also be a cause of friction with extra-regional powers. Potential for 'grey zone' contests between state agencies over access to fishing resources.

Shipping accidents

- IO is one of the busiest trading routes in the world. Malacca Strait alone accounts for around 40% of world trade. Relatively high proportion of tankers.
- Many IO island and other littoral states dependent on Blue Economy, but have few capabilities to deal with shipping accidents.

MV Wakashio – July 2020

- Sinking off Mauritius, causing the release of more than 1000 tonnes of fuel oil near important marine nature reserves.
- Scale of the disaster was far beyond Mauritius' capabilities, leading them to build makeshift containment booms out of sugar cane waste and bottles.
- France took the lead in providing assistance by deploying experts and pollution control equipment from nearby Réunion. Japan, India, Britain, Australia and others also provided expert assistance.

Shipping accidents

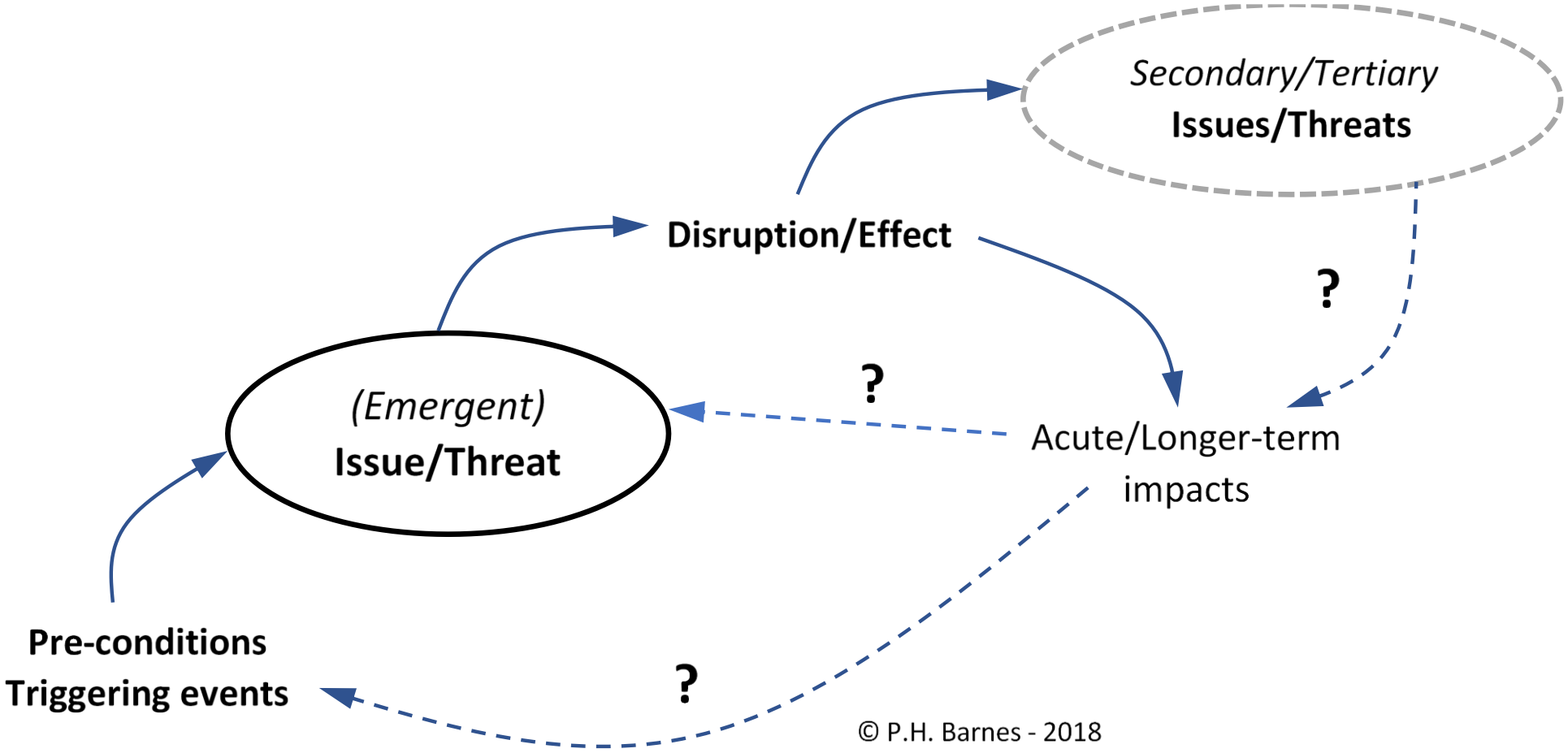
MT New Diamond – September 2020

- Engine room explosion supertanker MT New Diamond bound for India, carrying 270,000 tonnes of oil. The burning ship, disabled and with a two-metre crack in its hull, began drifting towards the Sri Lankan coast.
- The sinking of the supertanker would be an environmental and economic disaster for the entire region.
- Sri Lankan authorities working with the Indian Navy, Air Force and Coast Guard took around a week to contain the fire.
- Ship put under tow several weeks later.

2. Interaction of geo-environmental and geo-strategic challenges

- Incidence and severity of environmental disruptions in the IOR will likely grow in coming years as a result of climate change.
- Environmental threats can’t be properly understood in isolation from each other, or in isolation from ‘conventional’ security threats.
- In practice these disruptions have the potential to go far beyond what is normally understood as discrete environmental challenges.
- Need to understand them as ‘geo-environmental’ challenges, on par with geopolitical challenges in terms of their potential to become a significant disruption to the strategic order of the region

Cascading and compounding events



Case Study: The impact of Somali fish stocks on the strategic balance in the western Indian Ocean

- The problem of Somali-based piracy over the last 20 years demonstrates the interrelationship between non-traditional and conventional security threats-.
- Collapse of the Somali state in the 1990s led to the cessation of enforcement of national laws at sea. This led to the severe degradation of the rich fishing grounds off the Somali coast by IUU fishers with a major impact on food and economic security of local fishing communities. Many Somali fisherman, in search of new forms of livelihood, turned to piracy.
- The threat of piracy against international trade prompted an international military response, including the deployment of high-end naval vessels into the western Indian Ocean from many countries inside and outside the region.
- But despite the reduction of piracy over the last several years, many countries continue to maintain a regular naval presence in the western Indian Ocean. The presence of large numbers of extra-regional naval vessels has had a long-term impact on the regional balance of power.
- The piracy threat also spurred the widespread use of military personnel and private security contractors aboard commercial vessels and the advent of private floating armouries in the northwest Indian Ocean.
- Some of these consequences may have been different if the region had addressed the Somali piracy issue in a different way.

3. Regional responses to environmental security threats

- PESP has undertaken excellent work in eastern IO – but need to develop a broader network among Indian Ocean partners, including in the Western IO
- Opportunity for Australia and like-minded states to build regional response through sponsoring an Indian Ocean Environmental Security Forum
- Australian Senate inquiry on Australia-France relations (August 2020) recommended that Australia should work with France and other like-minded countries to address environmental security threats including through the establishment of an Indian Ocean environmental security forum.
- Australia should work with key partners in developing collaborative arrangements for training, capacity building and disaster response.
- This would encourage the pooling of expertise and resources with local partners, with a focus on collaboration among military and civilian officials.
- Importance of collaboration with NGOs (international and local)
- Pacific Environmental Security Partnership could provide valuable lessons for a similar collaborative mechanism focused on the Indian Ocean