



Protection of Marine Waters (Prevention of Pollution from Ships) Act 1997 1 November 2001

Mrs PENFOLD (Flinders): The Pollution of Waters by Oil and Noxious Substances Act 1987, now known as the Protection of Marine Waters (Prevention of Pollution from Ships) Act 1997, seeks to minimise the likelihood of accidental or deliberate pollution by oil or noxious liquid substances. It also addresses the issue of appropriate disposal of rubbish from shipping vessels. The act implements the annexes I, II, III and V of MARPOL, which is the International Convention for the Prevention of Pollution from Ships to which Australia is a signatory. However, there are further annexes of MARPOL dealing with sewage and management of ballast water which I understand are not covered by state acts and about which I still have some concern. Dr Francis Michaelis, the program manager of the Invasive Marine Species Program, advises that 'Australia has around 60 000 kilometres of coastline including offshore islands' and that Australia is among the world's 12 most biologically diverse countries, with up to 80 per cent of our southern and 10 per cent of our northern marine species found only in Australia. We have a lot at risk.

When a ship takes on ballast, normally in coastal waters outside port, to make up for weight loss after unloading cargo, it also takes on thousands of microscopic organisms including plankton species, the planktonic life stages of other marine species and pathogens. These organisms are then transported in the ship's ballast tanks and released as the ballast is discharged when the ship arrives at another port of call, unless a changeover of the ballast water has been made mid-ocean. While I am aware that overseas ships are supposed to dispose of water ballast outside the Continental Shelf, I am also aware that this is not always strictly adhered to, as exchanging ballast while under way may threaten the vessel's safety. Around 150 million tonnes of ballast water is released in Australian coastal waters each year from international shipping and a further 34 million tonnes from coastal vessels.

A range of molluscs, crustaceans, worms and seaweed that threaten indigenous marine environments have been translocated internationally in this way. Worldwide, examples include the donoflagellate, introduced from Japan to Australia, the comb jelly from North America to the Black and Azov seas, and the Indo-Pacific swimming crab from the Mediterranean to Colombia, Venezuela, Cuba and the United States. It has been estimated that ballast water may transport over 3 000 species of animals at any one time and that one introduced species is becoming established every day.

It has been a source of concern to me for a number of years that ballast water and hull fouling from overseas ships introduces dangerous marine pests and unwanted and toxic microorganisms into our marine environment. The fan worm has wreaked havoc in Port Phillip Bay in Victoria. It was apparently introduced into the bay through disposal of water ballast from an overseas ship, as was the sea star, which is well established in the Derwent in Tasmania. Sampling has revealed sea star larvae in record numbers around port facilities in Hobart which is where researchers believe the pest was introduced, also presumably by an overseas vessel. I am extremely concerned about the potential environmental impact, particularly on the Eyre Peninsula region which is heavily reliant on its fishing industry and aquaculture farming enterprises, should an environmental disaster occur in this region.

Port Lincoln and Ceduna are important destinations for overseas grain ships. Thevenard, at Ceduna, has gypsum and salt ships as well. Each overseas vessel poses a threat to the future of our multi-million dollar aquaculture industry. In addition, there is an increasing incidence of coastal shipping visiting our harbours that could inadvertently bring these organisms with them from other Australian ports. Should a situation similar to the devastation of sea beds in Port Phillip Bay by the fan worm occur in this region, it could mean environmental and economic disaster. The success of the aquaculture industry depends on a guarantee of clear, pure water.

There is a wider implication to Australian communities regarding hull fouling and ballast water disposal. Toxic organisms harmful to human health can also be translocated in ships' ballast water. Cholera has become a high-profile ballast water threat ever since North American researchers reported to the World Health Organisation the detection of the potent toxic strains in ballast water samples from ships originating from Columbia and Brazil during the 1991 outbreak. This event also triggered AQUIS in 1996-97 to instigate a targeted cholera testing regime for ships arriving in Australia from India and South America, the results of which so far have been negative.

Given that indigenous cases of cholera are known in Queensland, AQUIS has considered it necessary to address the question of the likelihood of new virulent toxic strains being introduced, or domestically translocated by ships' ballast water. AQUIS endeavours to implement strategies to effectively monitor the impact on public health and aquaculture should an exotic introduction occur, and to have in place the available ballast water treatment options and public health emergency procedures if a contaminated ship actually discharges foreign organisms in Australian coastal waters.

There are a number of national committees that have input into the problems relating to introduced organisms. Three of these are the Australian Introduced Marine Pests Advisory Council, the Consultative Committee on Introduced Marine Pest Emergencies, and the National Introduced Marine Pest Coordination Group. Funding the work being undertaken by these organisations to reduce Australia's risks must be a priority for all governments.

Last year, I organised what was a very informative briefing on 'Introduced marine pests in South Australian waters—risks and prevention', which was held here in Parliament House. One of the papers stated:

What is needed is for the ballast system of commercial cargo vessels to be re-designed so that organisms are not translocated or discharged into foreign ports. However, the industry is in a catch 22 situation. Regulators can't insist on vessels having a special ballast water system as one hasn't been invented yet. The reason that a special system hasn't been invented is that it requires a lot of time and money to do so. Potential investors are not interested in investing money into developing a system for which there is no market. And there is not a market because the authorities have not made it mandatory. The only way ships will fit a special system is for it to be made mandatory. After all, why spend \$1 mil [per year]. . . that your competitors don't have to. The international shipping community is just that—international. Profit rates are extremely marginal and freight rates (price paid per tonne of commodity ship carried) can fluctuate wildly. International shipping is an extremely competitive and cut throat business.

This illustrates that pressure needs to be brought to bear internationally if adequate protection is to be put in place. It is my view that it is in the best interests of the people of the world that this is done whenever possible. Foreign organisms of all kinds tend to thrive when introduced into places where they do not have natural predators, and they can be devastating to local species and to our industries.

In the meantime, we have to support AQIS and the relevant committees and be vigilant ourselves in ensuring that shipping is carefully monitored for best practice. As a government and individuals we can inform others of the risks and watch carefully for any signs of foreign exotic organisms or potential risks that can be controlled. Pamphlets that are available to all those who come into contact with oceans and public boards illustrating those marine organisms that are known to be a risk and likely to be transported to our regions from elsewhere should be readily available to all.

Motion carried.