

PLENARY SESSION

Transcribed from audio tape

Ian McPhail

Director General, Queensland, Environmental Protection Agency, Adjunct Professor of Geographical Sciences, University of Queensland, Australia

The establishment and management of marine parks is amongst the most demanding parts of public administration. The exercise is, as Sir Humphrey Appleby of the "Yes Minister" series, would describe it, "character building." Marine parks are quite different from terrestrial protected areas, not only in tenure and management but also in the manner in which they are measured in political and community attitude.

A conventional national or provincial or municipal park promotes a one-off debate at the time of its proposal. The decision is one of land use followed by a tenure challenge. From this point, the relevant agency becomes the land manager and the normal dialogue begins with the community over management plans and practice. The terrestrial park is a straightforward consideration of land allocation options, and once the decision is taken the new protected area fits readily into the very familiar real property ownership system. But the marine park does not. MPAs are conceived in controversy and continue indefinitely as a locus of active public conservation.

Apart from a very few scattered often spatially very small, no-take areas, the bulk of the world's marine parks are multiple use areas. They are rarely exclusive tenure and in most cases are operated by agencies that must manage a series of rights, claimed or exercised by a variety of players. Consequently intense debate with affected users are never singular but are continuous as management needs evolves. Any proposed shift in management regime is seen as a threat to established rights of access and exploitation.

Accompanying the complexity of spatial or rights-based arrangements is the equally difficult challenge of compliance and enforcement. A system that is dependent on vessel and aircraft based enforcement mode is subject to significant resource requirements and is forced to develop risk-based approaches to compliance and enforcement. Where avoidance is a business decision, in a number of cases, an increasingly sophisticated method of surveillance and intelligence gathering has become necessary and close cooperation with other enforcement agencies is now common practice. It is only in recent years in Australia that courts have responded to the view that illegal fishing and unpermitted access and the like are in fact significant and damaging activities, and not trivial events to be dismissed lightly. The reason for the frougt ? ...universal marine park management lies in the government's paradigm that has been chosen. Namely a management layer placed over a separate sea bed and water column rights and tenures held by various governments and access permission such as those for fishing that having increasingly morphed into tribal rights.

The notion of the seas as the last commons is more theoretical than real. In government terms, the marine model use for protected area managers is given the bipolar task of reconciling the maintenance of the ecological system within the protected area and the boundaries for which conservation was sought with the need to support the sustainable use of the economic resources. These goals are seen as close to being opposite. Theory would argue that sustainability is achievable through the wise use of the resource, But in reality the marine park managers are inevitably captured by the inflexibility of the investment made by the fishing, tourism and transport industries. Ecosystem protection becomes subordinated to the need to maintain production, protected investment value or to satisfy human demand for access to either fishing, boating or visual experiences.

The alternate paradigm is the marine sanctuary model, implemented in the state of Victoria in Australia and in New Zealand and I know in other places, these are the strict no-take zones, essentially national parks in the sea but are by definition very small in spatial extent. The driver for the size and

strength is the strong defensive argument put by users to protest the removal of access, lost economic opportunities and social distress. The benefits of no-take reservations are increasingly being demonstrated in research findings that indicate clear improvements in biomass and fish abundance. However, the weakness of the model is a loss of opportunity to influence the management of the larger part of the ambient ecosystem, identify and protect connectivity and seek to be more comprehensive in a selection of areas to receive a higher level of protection

It is certainly argued in Queensland that size matters. Additionally it challenges the managers of marine parks, as well as all marine resource managers is further compounded by a perspective shared by politicians and the community alike about the lesser value of the wildlife of the sea. In Australia the charismatic mega-fauna, whale, dolphin and holga are much esteemed and increasingly guarded by the popular press and by non-governmental efforts. Yet at the same time all sharks as a class are considered equally guilty of man-eating incidents and all fish are seen as a bright target for humans. In Australia the “I fish and I vote” bumper sticker represents a general belief that fish are not the same as land animals and the slogan is an analog of the considerable political potency of this generally held view. Like all generalizations there are exceptions. The marlin gallows at the Kings Gate fishing wharf have long gone and the build and sail charter boat industry is almost entirely centred on tag-and-release capture. In the same manner the vessel fishing-based tourism industry on the Great Barrier Reef now defends the protection of live fish and seafood as the staple of the tourism experience and consequently a vital part of their business asset. But in general Australians do not see fish as they do a terrestrial animal and have even granted the building? ...??? in comprehending the vital functional role of each species in the ecological health of the marine system.

In contrast, the conservation NGOs and any informed professionals see multiple use of marine resource Reserves as an abomination and an easy rationalization for governments to complain that they are taking marine conservation seriously.

Existing unsustainable practices are, this argument contends, given both credibility and support under those regimes. As a result this thing stimulates escalating demand for corrupt zoning? which in turn reinforces the initial reservation of those stakeholders who had reluctantly accepted the establishment of the reservation in the first place.

The Great Barrier Reef Marine Park has only some 4% of its total area of 345,000 square km in highly protected areas. Although 20% of the reefs are protected. Following several reviews and protracted political pressure, the Great Barrier Reef Marine Park Authority embarked over a year ago on the conduct of the first reef-wide marine zone of the marine park..

The Representative areas program, as it's called, has as its nominal objective to bring 25% of that 345,000 km² into highly protected area including 20% of its bio-region. However the proposal is already strongly contested and it is about to go out to its second stage of public consultation, and it is in the second stage that the map will be made public. A sophisticated and very thorough public consultation has been conducted in the first stage and the argument has been carried on the back of defensible scientific rationale but in total it is an ambition that even a decade ago would not have made it to the first stage because of a ready alliance between sectoral interests and political indifference.

As a lesson for you, but real in the public mind, is the comprehension of the word “park” and the automatic connection made with terrestrial national parks. It comes as a surprise to many that resource exploitation is permitted within marine parks and it is on this misunderstanding that interested groups pressed their claim for larger and larger no-take areas. A title such as a “managed marine area” would be more accurate but probably too late, at least in Australia, to change the title marine parks as something that matches community intention.

A steady rise in the base public understanding of the marine realm is the origin of a public concern for better marine management. Media discussion now tackles the issue of marine pollution particularly

the increasing comprehension of land-based sources of pollution and the real effects of over-fishing which are now part of these conversations. But fishing is not the single concern however and that industry is itself, in turn, increasingly vocal about practices that threaten this abundance. Mangrove clearance, algaeblooms, the increase of infor? Insular? coral and more frequent outbreaks of the coral-eating star fish are all activities or phenomena that are the subject of considerable public debate and action in our country.

Conflicting and contradictory as some of these debates may be and partial in both exclamation and understanding, the level of public discourse has risen, In some senses it may be little more than a general unease but there has been a displacement of the comfortable view of the ocean as a blue garbage bin, effective as a disinfectant of the earth's waste, and infinite in its resource capacity. But there still remains many constitutional constraints. Governments know that to bring new areas into the terrestrial parks system, other than vacant crown lands, the freeholder lease must be purchased in return for which the majority of all other interests are extinguished. Marine parks are different and they are usually a management construct that overlays and does not replace other interests. While governments accept that they must pay for terrestrial properties, they are generally reluctant to purchase rights to the marine environment. In consequence, changes to zoning that affect access rights are inevitably made more difficult because of the squeeze put on other users and the negative impacts of displaced effort particularly in terms of fishing. Certainly governments under a number of carefully coded decriptions have met financial demands for adjustment funding as the increasing obligation to reduce effort in a number of fisheries has become necessary. Canadian experience is of course, considerable in this difficult arena of resource management. I have often thought that fisheries management is not an oxymoron.and that stock assessment is the last black art.

In practice these debates in Australia have seen the transformation of the permission to access fish stocks into a claim of a property right that is valuable and negotiable and therefore to compensate if there is wish to remove or transfer effort. Therefore, in such a context governments are reluctant to buy our interest in the marine environment as much as through the misunderstanding of the parallel with land – based acquisitions as an unwillingness to treat marine-resources as a serious contender for management.

Well, given all these things, why do we bother? Is there value. in multiple-use managed areas and in my experience unequivocally in the affirmative. The Great Barrier Reef Marine Park was in fact instituted in the first place as a defence against oil drilling and coral and limestone mining. It had nothing to do with ecosystems or bioregions or even conservation in the modern accepted phrase. Most of these words were barely invented except by academics and were certainly not part of any public discourse. And so the very reason for the existence of the Great Barrier Reef have now transformed into a platform from which a far more sophisticated approach to management are now possible. Without that 345 000 km² having been reserved the approach toward ecosystem-based management and a systematic approach to sustainable use exploitation would not have been possible for a very major part of northeastern Australia.

If you look at the map of the borders of Queensland. If you follow the pink line, you are looking at an area where there is no state as opposed to federal government National parks are owned and managed by the states as opposed to the federal government. There is an Australian National Parks and Wildlife Service but it owns only about 3 or 4 superb parks abut only a tiny proportion of Australia's total park system What creates the commonality in Australia over national parks is the application of IUCN category which defines the level of protection.

So the red pink line follows the 3 nautical-mile territorial limit of the provinces. Outside the 3 nautical. Mile limit you move into the realm of the commonwealth or federal government which extends through the 12 nautical miles of territorial sea, the continuous zone out to the 200 nautical mile of the Exclusive Economic Zone (EEZ)

What we are looking to do is to create in Queensland a border-to-border state marine park . It would begin in the top left, there is border with the Northern Territory and down in the bottom right hand corner

New South Wales. You will notice that the pink areas represent where there is no existing state national park. What I hope is surprising is that there are already extensive areas of existing state marine parks. Marine parks are a relatively well accepted conservation device in Australia particularly in the state of Queensland created by the existence of the Great Barrier Reef Marine Park. But here we come to one of those interesting issues of jurisdiction. The Great Barrier Reef Marine Park baseline system comes the low water mark. Between low water mark and high water mark is the intertidal south marine park Here you are looking at pretty deep as much as this, particularly up this coastline Because of the distance from the barrier reef is a low indented coastline providing vast intertidal flats and mangrove forests which are of course the ecological engine of this system and they all fall within state jurisdiction. The operation of the coastline system barriers areas such as this are in fact the internal border of the state of Queensland. [inaudible] This island here in the foreground is in fact the sovereignty of Queensland although it is contained in the Great Barrier Reef Marine World Heritage Area.

What happened is the history of marine parks in Queensland began with a piece of federal legislation called [inaudible?] and it has nothing to do with marine conservation but had to do with the same argument you have had off Newfoundland: does the federal or state government own it already. It's all about offshore oil exploration in the southeastern [inaudible].

Then there were a series of of devices. The federal government constituted the Great Barrier Reef Marine Park , but did it only after two Royal Commissions based around oil exploration, nothing to do with conservation. Because the federal government won the 1973 Sea and Submerged Land Act they were like the dog that caught the car. Once you've got it, what do you do with it. What happened was that the federal government had absolutely no offshore fisheries management or other capacities so they then negotiated with the states of Australia an offshore constitutional settlement which gave the states the rights out to the 3 nautical mile zone protecting the Great Barrier Reef which came into the low water mark.

Queensland then agreed that in 1982 parks legislation for a marine park act which mirrored the Great Barrier Reef Marine Park Act to allow for the treatment of the anomalies. How do you deal with the inshore area, the internal water, how do you make it possible to operate. So the federal govt. [inaudible] the Marine Park Act then had a series of its own regulations that occurred under that legislation. In recent years, the same government has given back to the Great Barrier Reef Marine Park some 28 inshore areas that had been retained for [inaudible]. The state being carrier of all other parallel activities. I don't want to run through these too quickly. This represents a complementary planning process. It's not simply a matter of state legislation and federal marine park legislation within a whole range of other legislation which impeded upon the Coastal Zone Act.

.Protection in the Great Barrier Reef from inshore netting was negotiated under the the fisheries legislation not marine park legislation.

We have considerable overlapping legislation.

The only way to make things work in the Great Barrier Reef was to have the inshore state marine parks complement the Great Barrier Reef Marine Park so that we could get joint -management arrangement so that when we were permitting merger activities we do not have to hunt for where the boundaries exist between the low water mark and the marine park proper. Indeed we used to play a cricket match between our agency and the Great Barrier Reef Marine Park as to what was known as the "Low Tide trophy" and that was about as close as we ever got to defining the boundary between our property and theirs. This in fact allowed business to happen . There was no vessel-based tourism operator who doesn't treasure both state and commonwealth orders

Queensland State has a very significant marine park of its own sometimes forgotten in the shade of the Great Barrier Reef .

. This is now presently an area of 400,00 hectare And that is going through its second consultation period at the moment, and it is very likely that it will come into force.

In other words there is a wide acceptance of the marine park concept by the public although with considerable reservation. The very large Marine Park, 36,000 hectare is particularly significant because this is the port of Brisbane, the main port of the state. So we have a marine park surrounding the area of principal transport activity. So in the waters of the Bay we have the port and the shipping channel and of course everybody in Australia gets a boat for their birthday. There are something like 50,000 registered vessels in that northern bay and of course you have the islands. You have islands within the marine park but also in some cases a national park and therefore we manage them but others are private. So we have our most intensive use areas of the south. We have serious problem in the inshore but we have been able to do a number of useful things in relation to the management of particular species. The Great Barrier Reef World Heritage Area, is. 345,000 square miles. You are familiar with these? And it is important that .in the. commonwealth-state agreement both the. State and federal government puts in an equivalent amount of funding annually about \$4. million each for the management of the Great Barrier Reef Marine Park. There are no commonwealth ranges there are state ????. They have a wide range of uses and a wide range of impacts, as you can tell, as it spreads over 1200 km of coast but also it has made the fishing industry more responsive and we have been able at considerable expense to both governments to force the fishing effort levels down by about 30% and have been able to enforce such components as turtle and bycatch devices. You would be forgiven looking there to think this is a pelagic fishery. It is not. It is a shrimp fishery with a 12 % ??? bycatch rates and where the trawler passing over the same patch of sea bottom will intensely remove the entire benthic population. These fish, called trash fish, shoveled over the side, stimulated an explosion of crabs and other scavengers on the bottom. have very significant effects we believe for the functioning of the ecosystem proper. But it is now obligatory for by catch devices And again, it is interesting even though with a knock down drag out fight, I was too polite to say it in a written paper, but marine parks are about fishing. Everything else is easy.

After we have had the debate about fishing effort, the remaining fishers see themselves in a position of operating profitably. Then if the industry can operate profitably they are even more likely to operate responsibly.

Researchers base reports on other the assets of the Great.Barrier.Reef. Researchers have a particular hubris. Because a researcher wants to carry out a particular research activity it must be good. But many research activities are highly destructive. One researcher wanted to drop a series of anchors of different sizes on the coral and then see what damage could be done. Given the vast biomass of coral it probably didn't add up to much but the image of it was pretty bloody awful.

The Great Barrier Reef in the parks has been claimed by way of sections and each section has been re-claimed and this has now been completely changed . The Great Barrier Reef Marine Park code is now moving towards a complete rezoning based on ecosystems, based on, in turn, on a definition of bio-regions which will lead to reef wide rezoning..

In about 3 weeks time a map will come out for public review. That I spoke of before. The idea was to move from 4% to 25 % protection and that's interesting is that the areas that are most underrepresented are the lagoon areas and those lagoon areas are the parts where the major industry exists.

This pretty but basically significant asset, is an important asset to the Tourism industry. I just wanted to make the point that Australia has moved further. It's only at the beginning stage, but we have an Oceans Policy and the vehicle established through that ocean policy is through a form of a regional marine plan. The first regional marine plan is being developed for this area and it is being developed with the active non-cooperation of the adjacent state governments and that had to do with the politics of the Oceans policy initially developed. The next one, is going to be up in the Tropical zone and outsiders are going to be active participants in the northern regional marine plan. But Australia has 11 million square km to zone, a little up to a \$50 million worth of .sustainable continental shelf is taken into account. These

areas are increasingly areas of illegal fishing. Some of the great misunderstanding about fish stocks have occurred here. There is one stock known as orange gruppy, but this fish was when first harvested considered to be singularly the salvation of the Australian fishing industry. What they didn't realize is the orange gruppy lives to be 80 to 100 years old and reproduces very slowly. The consequence is that they pretty well destroyed the stock in about four seasons. It is now a very highly regulated fishery. We have the Patagonian fish and it is now being hunted illegally by Chilean and other fishing fleets from South America. But we are now developing, at least, taking a first step at developing a management regime. for the oceans of Australia.