

# **Nightmares and Dreams in Coastal Zone Management in Australia**

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**Despite my years I still have dreams.  
But what is scary, I still have nightmares.**

I will confine my exposure of these dreams and nightmares to Australian coastal issues, leaving unsaid all those other exciting matters that occupy my psyche.

On numerous occasions I have outlined my concerns about coastal zone management (CZM) in Australia including my own failures as a player on national, state and local scales. I know many of you share these concerns and others do not. The establishment of Australian Coastal Society (ACS) was one way several of us took the plunge into the murky waters of CZM to try to make a difference—and we keep trying!

In the meantime, I believe we have to confront a range of negative developments as well as offer aspirations for the future.

**I will condense my nightmares into a few scary bits and then offer some dreams of hope.**

Let me start with the **nightmares**.

Several years ago I made a press statement about the likelihood of death from the collapse of a cliff top development. I got into trouble with the then Minister for Planning in NSW for going public with this nightmare as I was chair of the NSW Coastal Council at the time. I told him in no uncertain terms that he should have the same nightmare. I still fear waking up to the news of such an event. Buildings have been allowed to perch on the edge of cliffs whose geologic structure is subject to failure. At some unpredictable point in time one or more will fall with families trapped inside.

Just as deaths occur from rocks falling on people and the unsuspecting being washed to sea off beaches and platforms, our passion to overlook such risks will continue to provide me with long lasting fears—and don't try to tell me to get over it as the threat to life remains and may even grow.

Our planning systems persist in placing residential property and critical infrastructure in harms way. We inherit a legacy of developer pressure and council complacency in allowing the risk to obvious natural hazards to accumulate. Except in tropical regions prone to cyclones, there is little heed in building design to reduce impacts of extreme events. The insurance industry is increasingly aware of the every increasing burden on their bottom line and premiums are rising or no insurance against coastal events is becoming a fact of life for more and more property owners. This nightmare is not so much one of death but widespread destruction of property, social hardship, environmental damage and economic loss. Look at the floods and storm surges of the past few years and their costs. Existing settlements around the Australian coast will continue to be hit by these coastal hazards, especially low-lying built assets, and I fear things will get a lot worse for future generations. Two questions:

1. Will this mean a permanent tax levy to pay for the moral hazard that insurers refuse to cover?
2. Will planners continue to be pushed by politicians to put so-called "affordable" residential homes on floodable land even against the advice of emergency services?

"Who do you believe me or CSIRO?" These are very scary words from a well-known Sydney shock jock. They highlight one of my worst nightmares: that my grandchildren and their children will have to cope with the full consequences of a 4 degree warmer world. What kind of world are we leaving future generations?

Climate science is informing us of the need to adapt to what I will term the "new climate era". On our coast this means many things. One nightmare for swimmers and surfers is the southward migration of the very small deadly jellyfish, Irukanji; this venomous creature is now turning up near Fraser Island. As reported in the August edition of Moonbi, in April, 2012, a five year old girl was airlifted to hospital from the Hervey Bay side of the island near Moon Point. Is this proof that these jellyfish are expanding their range as ocean waters become warmer,

and if so what are local authorities doing to warn residents and tourists of potential dangers?

Gravelly I see signs that many in government, both state and local, are starting to turn their backs on the science of climate change and accompanying policy initiatives that we have been discussing for at least two decades. I fear the worst as we increasingly become a nasty polarised society that just does not care and seeks to remain ignorant of the consequences of a warming planet.

Why is this so? One can wake up in a sweat screaming at those in the media and their fellow travellers ranting about the need for instant and continuous economic growth without concern for the cumulative environmental consequences and long-term risk to the future of built assets in low-lying coastal areas. The call for more and more jobs even at times of relatively high unemployment is always appealing to an electorate who show little interest in understanding what science is trying to tell them. Poor-mouthing scientific achievements have become a blood sport for many with a conservative political orientation. This does not lead to nation building for a continent so prone to natural hazards and climate extremes. We must find ways to look beyond an election cycle.

Our political leaders focus on the short term: yes they tell us the future has no votes! True, but surely they have children! You cannot continue to abuse and exploit our natural resources and expect our nation to withstand the greatly added stresses of population growth, human displacement, global economic disturbances and climate change.

My experience in CZM generates some more specific nightmares. A general trend since the 90s is the down-skilling of government agencies responsible for coastal planning, NRM, and program development and delivery. In addition, there is a long standing resistance by governments to employ people to enforce compliance with regulations. Federal, state and local governments are so budget conscious that they take whatever opportunity to use voluntary or forced redundancies to down-size their work force. CZM would never be classed as “frontline”! And they shy away from taking court action, especially in support of local councils.

Since 2008 I have advised 4 separate teams in Department of Climate Change and Energy Efficiency (DCCEE) on coastal science and management; from July there is no coastal branch in DCCEE as the adaptation team under budget restrictions has been down sized. At state

levels just how many dedicated coastal or climate change adaptation teams still exist? What are the consequences of perpetual down skilling?

One consequence is out-sourcing. This has been a boon for engineers and other professionals. They compete for proposals and offer governments and businesses loads of technical support. It raises questions as to the capacity of those who are left in governments to prepare briefs and review the tender process, and to digest the technical information in ways to effectively advise Ministers and councillors. Lawyers have got into the act and the use of litigation to resolve disputes has grown. And there are those who serve in Ministerial offices as “gate-keepers” who sometimes in my experience exert undue influence over policy development and implementation as recently outlined by Jennifer Westacott (Chief Executive of the Business Council of Australia) in a controversial article in the Australian on 21 September.

In my nightmarish state, I lament the loss of much of this expertise to the private sector to protect private interests at the expense of the public good. But, the world of the 70s and 80s has moved on. There are no more Beach Protection Authorities that served Queensland so well for so many years. We must realise that protective mechanisms have to adjust to a less scrutinised, competitive environment that often adversely impacts on many treasured coastal assets; just look at what might have happened to parts of the Great Barrier Reef as mineral exporting ports spread from end to end!

I am very conscious, and it is a burden on my sub-conscious, of just how our coast is managed within silos. Forget about Integrated Coastal Zone Management (ICZM): we live and operate in a disintegrated governance arrangement, what I term D-ICZM. Some may replace disintegrated with dysfunctional—it doesn't matter, it is still a “D” word that resonates in my nightmares as we struggle to achieve coherent and coordinated public policy and decision-making.

Well intentioned academic studies argue the advantages of ICZM, but that is not the “real world” at least as I see it. Multiple agencies have their fingers in the coastal pie, and they resist others taking any of their slice! Budgets to protect, regulations that only they can apply, CEOs with contact performance indicators to meet, etc, lead to protection of turf. The result is often messy and never quite resolved as uncoordinated briefs get simplified and mangled on their way to Cabinet. Time demands on these “busy” people limits informed consideration of conflicts in coastal

spaces; disgruntled communities have to put up with decisions that more often than not reflect the voices of those that shout the loudest.

One awful consequence of silo operations over many years has been our failure to bring planners and coastal managers together in such a way as to reinforce the outputs of the coastal management plans with statutory land use plans. NSW has seen a weakening of the coastal protection zone under the so-called standard template from one agency, combined with a plethora of guidelines that are not mandatory from another.

Coastal Australia is under enormous pressure from population growth. Governments and their public servants, the planners, are reacting by creating opportunities for developers. All this is understandable given the political, economic and media mantra of growth. The new NSW Green Paper reflects this attitude; I quote from the Minister of Planning's Foreword:

*The planning system must support the Government's priority to facilitate NSW being the number one choice for business investment ... removing red tape from development assessment.*

When I read such words, I am alarmed and disturbed, not because I am against good strategic planning, something this Minister is seeking. However, we must always remind ourselves that the short term interests of developers does not often intersect with those social and environmental goals that underpin protection of coastal values that current and future generations are entitled to enjoy. Red (or green) tape removal is code for less regulation; it could signify more freedom for the individual property owner to exert their "rights" to destroy and degrade if that suits their own personal short term gains.

I now want to share with you a nightmare common to many in local government. It is the nightmare that drove the establishment of the National Sea Change Task Force. Local government is the cutting edge of CZM. State governments have and appear to wish to continue the trend of passing more responsibilities to local government often without accompanying technical or financial support or even consistent guidance. The local level is where the conflicting aspirations of communities are at their worst.

Many local councils are grossly ill-equipped to meet the political forces behind development pushed by population growth, seasonal tourism, demand for local employment, and desires to perpetually enjoy rising

property prices. They are also ill-equipped to provide the necessary infrastructure to support these pressures. At the same time we find pressures from within communities to place caps on population (Noosa) and protect natural assets. Furthermore, these coastal local governments have to meet demands of state governments—all this is truly a nightmare!

Looking more specifically at coastal land use planning, I often recoil at terms like “merit assessment” and “matters for consideration”. They are the basis of well-intentioned planning concepts, but they can be the source of many coastal nightmares both from the past as well as looking into the future. What they allow is a lack of any obligatory weighting of critical natural assets that require protection as well as defining those parts of the landscape that place human activities in “harms way”. One area where there is “weighting” favours development---I refer to powers under mining legislation. OK we have some wins with our natural parks estates, but even there we have to be eternally vigilant as tourist pressures in places with declining staff such as on Fraser Island.

The declaration of World Heritage does not offer help when the federal government essentially outsource any management responsibility to a relatively poorly resourced state agency. This is one example of a never-ending debate about the role of the Australian Government in environmental management. As we speak there is intent to devolve many of the *Environmental Protection and Biodiversity Conservation Act, 1999* assessments to the states. Our constitution limits federal powers unlike some other federated nations like the USA. But it is a nightmare as the nation faces huge environmental challenges as we enter the new climate era.

On the coast, issues of resettlement, insurance, compensation, national standards, defence of icon and valued assets, port expansion, must involve the federal government. Time and time again we have inquiries demanding federal leadership. Yet what have we seen? Why has a federal response been so difficult? Have all these inquiries been wasted?

The final nightmare that pursues me with vigour is my grave concern that environmental groups are fatigued (“burnt out” in the words of John Sinclair) to the point that engagement in policy debates and on the ground is declining. We can be thankful for some continued Australian Government support for CMAs and coastal communities through Caring for our Country. But contrast that with the more “integrated” efforts of all levels of government under Coast and Clean Seas program driven by Minister Robert Hill.

I worry that NGOs are far less engaged in the coastal debates than they were 10 years ago—in NSW we have not replaced the wonderful activism of a John Corkill or Fran Kelly. Amazingly at least one prominent coastal NGO is advocating destruction of newly formed frontal dunes in order to improve surfing observations and conditions! I despair! And meanwhile demands for submissions, participation in meetings (now often being taken over by climate change deniers), community monitoring and dune management continue to grow as older groups get older and are not being replaced.

Enough negatives; enough of my nightmares; I don't want you to leave the room feeling that Bruce Thom is drastically in need of the psychiatrists chair---I may but perhaps not yet??

**I continue to dream**

**I continue to have hopes and aspirations**

**I continue to have faith in future generations to do the right thing by our precious coast.**

I have many dreams for the future of the coast not the least that Queensland will successfully embark on a campaign to implement its Coastal Plan, and councils like Tweed will never embark again on putting rocks on beaches!

But first the **Big Picture**: I dream our society will continue to mature as a society that knows how “owning nature, responsibly” will lead to a future that supports sustainable coastal lifestyles AND livelihoods.

This phrase, “owning nature, responsibly” I have extracted from the writings of Eric Freyfogle, an American law professor. He articulates with great beauty and clarity how our future on this planet requires a personal, community, business and government commitment to healthy environments and landscapes that underpin the well-being of populations. Respect for environmental values embracing the concept of stewardship, is fundamental to my dreams of a coastal world that yields benefits for both private and public sectors now and into the future.

This is a huge ask. I am not that idealistic or naïve to realise that many in our current society will see such aspirations as contrary to their own self interests, the ravings of a dreamy lefty! But our younger generation, who will live 60-80 years under the new climate era, and will procreate and

have aspirations for their own kids, must see that greed and ignorance of the past can no longer be the dominant social and economic paradigm.

So onto my **second dream**. It will come as no surprise that it embraces education. I am committed to life-long learning. Exposure to distance education while serving as Vice Chancellor at the University of New England taught me how we can engage the minds of those who had limited access to higher education early in life. Our kids love the beach; they must never lose access to our foreshores or the joys of the many diverse habitats that border our nation. We must help them learn to nurture those habitats and understand just how precious and even precarious some of them are.

As we all know, there are all sorts of ways to acquire information and knowledge. The continuously evolving electronic/internet/social media age provides us with immediate access to information that can be turned into knowledge and even wisdom with the right intellectual support and encouragement.

Our coast is full of lessons: “I need the sea (coast) because it teaches me” (Neruda). I dream that our educational systems foster curiosity that will improve our capacity as a society to better manage our natural resources; to learn to question decision-making and policy forming processes that govern us is a fundamental ingredient of an informed democratic society. I also dream for improvement in courses in our universities that will adequately prepare coastal specialists in various disciplines; we need more centres of coastal excellence following the lead from Griffith, Curtin and other universities.

This leads me onto a related dream: continued R&D in emerging coastal science and engineering, in modelling, experiments and long-term observations related to Australian conditions both as a continent and regionally. Those aspects of climate change science that are of coastal significance should be a priority putting us in a better position to link knowledge of current processes with uncertain projected changes facing our coast in future. The release this week of the three volume guidelines commissioned by Engineers Australia is fantastic product to assist professional practice in coastal engineering in dealing with matters related to climate change. I wish to thank all involved including Doug Lord and Ron Cox who are in the audience today. Research into various fields of social science must also be encouraged; we lack historical, economic and cultural knowledge of human behaviour related to use and abuse of coastal resources.

The need for more respect of science is critical; it is more than just trust; it includes a need for concerned citizens to inform themselves of science and policy implications. Yes, this involves an effort, but unless more and more coastal people learn more and think critically about our changing natural world then scientific charlatans and their media associates with other agendas will tend to dominate the political debates.

But it also involves scientists entering into public debates, even legal conflicts, learning how to use language that resonates not frightens. Why do we model? What do we mean by probability and non-linearity, tipping points and thresholds, and in the way we view uncertainty in framing scientific questions. How quickly can we change public perception that science is not a belief system but a process of discovery that informs not dictates?

As a dreamer and as one who has looked at the way we engage society in public good issues, I can only hope that local community groups stay the course. It will be never ending, given the dynamic natural and human forces at play, and the incessant demands on individuals; from their families, employers and banks; and from a media that is often cynical about anything altruistic.

The new climate era will drive change the likes of which our society has never experienced. We will need to be led. Coastal “champions” are a vital part of the community process. Several years ago I reviewed the role of local leaders and found most were middle aged women. There were a few exceptional men such as John Sinclair of Fraser Island fame. Alan Stokes, Geoff Withycombe, Eva Abel and Chris Rees in the audience today, have made and are continuing to make impressive contributions to improved coastal management as are so many others too numerous to name. But it should be possible to capture a broader demographic including ethnic community and those of the self-serving Gen X! We hope that the initiative of ACS in promoting the mentoring of younger generations will assist in the development of new coastal champions. I wish to thank Naomi Edwards and her team from Griffith University in starting this initiative.

Obviously I dream of the need to up-skill our bureaucrats. This is a tough ask, I know. Public sector personnel management often discourages specialist career development. The loss of agencies such as the Qld Beach Protection Authority, or the Coastal Branch of the old NSW Public Works Department, means that Ministers and senior public servants do

not have access within government to frank and fearless advice as they had in the past. Over the last two decades there has been an ever increasing loss of corporate memory and even records.

Coastal specialists, those who can prepare briefs, develop and apply standards, and critically evaluate reports, are few and far between. This is not in the national interest if we are going to manage our coasts in a sustainable way into the new climate era. Somehow, we must do better than what our current public sector arrangements provide Australians.

I am a great believer in the role of independent coastal panels or councils which have access to Ministers and operate in an open transparent fashion. Some in government at political or bureaucratic levels hate such entities and when they exist try to shut them down: the NSW Coastal Council was sacked twice, once because a Minister did not want “coordination”. And look what happened as the Intergovernmental Coastal Advisory Group (ICAG) has slowly melted away in the absence of any champion in the old Commonwealth Environment portfolio.

I dream of the return of “coordinating” coastal councils, and their further empowerment, in every state and the NT. If effective, such councils help to break down the all-pervading silo mentality. Importantly, they can offer technical support for agencies (including local councils, businesses and communities) that could easily be missed or never developed without the broad oversight that should emerge from a “coastal watchdog”. We might even see planners, engineers, scientists, resource managers and community representatives sitting around a table and actually thrashing out policy ideas and practical management solutions that make sense to decision makers and can be effectively implemented. Ministers should come to love them! They will need them to fall back on as tough decisions will have to be made as to where to “hold the line” and build defences compared to where there will need to adopt what the British term “managed realignment” of the coast.

It has been a pleasure to see a federal Minister seek to develop a response to a parliamentary inquiry that dealt with coastal issues (HoR, 2009). I served as Chair of the Coasts and Climate Change Council (C&CCC) in 2011 and Minister Combet is now initiating actions within the Australian Government and through COAG in part following the recommendations of that Council. C&CCC no longer exists. However, its positions reinforced in many ways some of the 47 recommendations of the House of Representatives report and the many issues identified in the coastal risk analysis undertaken by the Department of Climate Change team in

2009 and 2011. Developing a set of risk standards for application by the Australian Government and improving the national building code for areas impacted by current and future extreme events and sea level rise could be a good first step.

My dream here is that any COAG outcomes that emerge from the COAG Select Council on Climate Change will have teeth. Hopefully, they will reinforce our recommendations and also those which will come out of the current Productivity Commission inquiry on climate change adaptation.

Now I must really offer **my big dreams**. They are also those of the ACS.

We are advocating the need for a National Coastal Commission (NCC) based on a national CZM Act. Let me explain. The scale of current and future impacts of coastal hazards on built and natural assets is huge. Scenario work by DCCEE in 2009 and 2011 conservatively estimated \$250 billion of built assets at risk by 2100; remember sea level will continue to rise well into the following centuries as being planned for by the Germans and Dutch. Look at how long it took to design and build the Thames Barrier: 30 years!

At some point we must begin the process of building levees and barrages to protect cities and vital infrastructure. There will be very hard decisions on how to compensate or to otherwise assist those settlements and communities that are not defensible. And we must realise that some natural assets will go or be drastically changed along with lifestyles as oceans warm, corals and other biota adjust, and foreshores are lost. Let us not forget the southward movement of nasty stingers on both east and west coasts!

The HoR Standing Committee did a sterling job in 2009 in reminding us of “the time to act is now”. National leadership was called for as we face problems that transcend state boundaries and go way beyond the resources of state and local governments. How can we minimise these potential adverse impacts and not just wait till crises emerge that drive political responses in a reactive and perhaps parochial way?

My dream is that COAG will support a federal CZM Act not too dissimilar to that in the USA. Such an Act would operate in conjunction with state decision making and involve incentives and standards somewhat like we see under the national competition policy. But the Act must do one more thing: it must establish a National Coastal Commission. Such a Commission must have powers that go beyond a

political cycle. It has to be able to work and plan for the long term, it must be a resource to help, financially and technically, all states and local coastal councils, communities and the commercial sector in dare I say, an integrated way---I really think this dream will one day have to come true.

**Now for the final dream.** Any national Act or the NCC must operate under a set of principles. Introduction into statute law at state and federal levels of the Public Trust Doctrine or PTD is one such principle. Several US states have enshrined the PTD into their constitutions. It involves a duty of care by the state to protect in the public interest those natural resources such as the beach for all time; it becomes mandatory for governments to look after the public good. Our beaches are one such resource, under threat in places from the “squeeze” of rising seas and sea walls. It is not just a matter for consideration but a perpetual obligation to hold in trust the beach and access to the beach for our future well being. But the beach is only one part of nature that needs protection. The PTD should enshrine a responsibility on governments and us as citizens to create enduring legacies of marine and coastal ecosystem protection, to move beyond what Tim Winton has movingly called a “polity obsessed with reactive, short-term twitches and fixes”.