Environmental Perspectives of Deep Sea Mineral Activities 9 December 2013, Nadi, Fiji

Domestic environmental and resource laws Clark Peteru, Legal Adviser, SPREP

Assumption that none of the 14 countries has functioning SBM laws

(Cook Is has S.B.Minerals Act 2009, entered into force March 2013 - requires implementing regulations? Fiji has International Seabed Mineral Management Decree 2013- but applies beyond national jurisdiction and not yet in force?)

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Golden Bay-based Chatham Rock phosphate has crossed a major hurdle in its plan to mine phosphate nodules on the Chatham Rise with the granting of a mining permit this week.

The first permit to be granted under the amended Crown Minerals Act, it will last for 20 years and covers 820 square kilometres of seabed between the Canterbury coast and the Chatham Islands.

The company predicts the project will make New Zealand \$900 million richer and contribute \$250m a year in exports and import substitution.

The company felt confident it could demonstrate the environmental impacts of its operations would be minor and localised. Its share price rose 3c to 31c yesterday after news of the mining permit was announced.

But the fishing industry is against it, saying it threatens one of New Zealand's most important nursery areas and could cost the country \$1.6 billion in seafood revenue over its project life.

The marine consent application would have to be made to the Environmental Protection Authority with a separate consultation process.

Fishing industry co-operative organisation the Deepwater Group said CRP had failed to demonstrate that its mining would not damage the seabed ecosystem or fisheries on the Chatham Rise.

Mr Clement said the major fishing companies the group represents weren't against mining, but "widespread environmental destruction".

He has previously said the CRP proposal is to "strip-mine" the seabed for short-term gains ahead of the long-term ability of New Zealand's fisheries to thrive.

- © Fairfax NZ News

NZ's CMA detailed and prescriptive, so good for regulators as it provides predictability but requires a large well functioning bureaucracy and efficient legal system.

mineral means a naturally occurring inorganic substance beneath or at the surface of the earth, whether or not under water; and includes all metallic minerals, non-metallic minerals, fuel minerals, precious stones, industrial rocks and building stones, and a prescribed substance within the meaning of the Atomic Energy Act 1945

Environmental consent is separate process and likely to be just as burdensome.

Contrast Australia's attitude to mining which is the backbone of their economy with NZ's clean, green branding/image important for food exports and tourism.

What domestic environmental and resource laws do countries have, relevant to deep sea mining? Mining (land); conservation; marine pollution laws What are the main elements of the template for a DSM Bill? Taking Fiji as an example-

DSM Bill	Existing national laws		
Definitions:			
Mine/minerals	Mining Act, c146 s2		
Deep sea minerals	Continental Shelf Act, c49, s2 "natural resources" the mineral and		
	other natural non-living resources of the seabed and subsoil		
Environment	Environment Management Act, 2005, s2		
• EIA	Environment Management Act, 2005, 2		
Licence (mining tenement)	Mining Act, c146 s2		
Declaration of Maritime Boundaries	Marine Spaces Act, c158A		
	(Constitution of Palau, art.1.1)		
	Palau shall have jurisdiction and sovereignty over its territory		
	which shall consist of all of the islands of the Palauan archipelago,		
	the internal waters, the territorial waters, extending to two		
	hundred (200) nautical miles from a straight archipelagic baseline,		
	the seabed, subsoil, water column, insular shelves, and airspace		
	over land and water, unless otherwise limited by international		
	treaty obligations assumed by Palau.		
Statement of rights over seabed mineral			
resources	Continental Chalf Act. c40		
-on the CS -in the Area	Continental Shelf Act, c49		
	ISB Mineral Management Decree 2013 Continental Shelf Act, c49		
Purpose	An act to make provision for the protection, <u>exploration and</u>		
	exploitation of the natural resources of the continental shelf of Fiji		
	and of areas within the territorial limits of Fiji		
Restriction of activities in the EEZ	Marine Spaces Act, c158A, s7		
	All areas of seabed and the subsoil thereof contained within the		
	exclusive economic zone of Fiji are <u>deemed to form part of the</u>		
	<u>continental shelf</u> of Fiji for the purposes of the Continental Shelf		
	Act, and to be subject to the provisions of that Act as if they were		
	areas designated under the provisions of subsection (2) of section		
	3 of that Act.		

	Continental Shelf Act, c49 s3.1 All rights exercisable with respect to the continental shelf appertaining to <u>Fiji and its natural resources for the purpose of</u> <u>exploring that shelf and exploiting those resources are hereby</u> <u>vested in the Crown</u> . s3.1
	(in respect of licensing of fishing vessels in the EEZ, see s12 and following of Marine Spaces Act and Foreign Fishing Vessels Regulations)
 Creation of regulatory authority Licensing Screening applicants EIA Waste 	Environment Management Act, 2005, s11 Mining Act, c146 Mining Act, c146, s19 Environment Management Act, 2005, s12, Pt4, sch2 Environment Management Act, 2005, s12, Pt5. Applies to a commercial or industrial faciility.
Appeals	Mining Act, c146 s10
Monitoring and enforcement Regulation making powers	Environment Management Act, 2005, s15.3.d; s32 as part of EIA Mining Act, c146 s68

- Environment Management Act, 2005, extends to the EEZ, s3.
- Has both a Resource and an Environment Unit.
- Marine Spaces Act, s24. Any offence against the provisions of this Act that is committed within the exclusive economic zone shall be deemed to have been committed in Fiji.
- Mining Act, c146 includes Regulations

While most elements are captured, weaknesses are: a patch work; so no single unifying policy; predominantly terrestrially oriented.

Use cautiously perhaps at the prospecting stage (eg, SOPAC type work), or not at all. Useful to know not beginning from scratch.

Policy formulation is critical particularly as different sectors will have different policies. NZ sequence: environment license trumps a mining license.

Scientific uncertainty on what sort of environmental harm will occur. <u>Precautionary approach</u> Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation. This falls to the proponent. Probably won't know actual harm until mining begins. Adaptive management - learning by doing, using <u>BEP</u>. Monitoring and reporting, adjusting to changes.

Cost Benefit Analysis - monitises costs and benefits ; opportunity cost; cost of doing nothing. (Possibly \$50m per yr in taxes/royalties?)

UNCLOS and regimes for multiple uses of the ocean: navigation, ocean space and maritime boundaries; sovereign rights to exploit; duty to protect the environment

Of huge benefit to SIDS: claims to continental shelf; restricted freedom of the seas

-Martime boundary laws

-Ship pollution laws

-Off-shore fishery licensing laws

-Continental Shelf laws

The further away from the State, the more tenuous domestic laws become, although it is important to note that State's can pass extraterritorial laws (effective on individuals, corporations registered in the State as well as ships and aircraft).

	Contiguous		1 nautical mile (M) = 1852m
Territorial Sea Baseline 3 M 12	Zone Limited enforcement M zone 24 M	200 M	
	Exclusive Economic Zone	Т	he High Seas
State/ Sea	Sovereign rights for exploring, exploiting, conserving and managing living and		n beyond national jurisdiction
Territory Coastal Waters	non-living resources of the water column and underlying continental shelf		To outer edge of continental margin up to a maximum of 350 M from the TSB or 100 M beyond the 2,500 m isobath, whichever is the greatest
Sovereignty extends to the air space,	Continental Sho	elf	/ The Area
water column, seabed and subsoil allowing for the right of innocent passage Scale of Rights	To 200 M inherent sovereign rights for exploring and exploiting non-living resources of seabed and subsoil, plus sedentary species	Beyond 200 M submission required to the Commission on the Limits of Continental Shelf to confirm rights	Seabed and subsoil non-living resources administered by the International Seabed Authority
Sovereign Territory	Sovereign rights to the water column and continental shelf	Sovereign rights to the continental shelf	No national rights 09-3603-1

-Marine protected areas: Cook Is Marine Park, Phoenix Islands Protected Area, New Caledonia Marine Protected Area,

Marine Species Programme 2013-2017: encourages whale and dolphin sanctuaries -Palau Marine Mammal Sanctuary (entire EEZ),

-Invasive species: eg, manganese nodules, soft-sediment, hosts species as well as the nodules themselves Can also occur in ship ballast water and hulls

Nagoya Protocol on access and benefit sharing

- Anticipated to enter into force in 2014.
- State has sovereignty over genetic resources
- Needs to facilitate access to genetic resources and biochemicals/enzymes
- More interest in marine organisms than terrestrial
- Prior informed consent of resource owners: mining licence condition or MSR permit
- Agreement based on mutually agreed terms
- Fair sharing of benefits arising from utilisation of genetic resources utilise
- UNU publication

Noumea Convention 1986 (Convention for the Protection of the Natural Resources and Environment of the South Pacific Region)

- The Pacific component of the UNEP Regional Seas network
- Concerned with the protection, development and management of the marine and coastal environment of the region (art. 4) and in particular to prevent, reduce and control pollution (art.5) including from exploration and exploitation of the sea-bed and its subsoil (art.8)
- Parties to protect and preserve rare or fragile ecosystems and depleted, threatened or endangered flora and fauna as well as their habitat (art. 14)
- Parties to develop guidelines and legislation for EIA (art.16)
- Parties to formulate rules and procedures for liability and compensation for damage resulting from pollution in the region (art.20)

Dumping Protocol 1986

Parties to prevent, reduce, and control pollution in the region by dumping (art. 3.1) Dumping not defined Annex 1 materials prohibited from being dumped except by permit Annex 3 Factors to be taken into account in issuing a permit

New Protocol (not in force) defines dumping, includes incineration, changes Annex 1 to a list of permitted substances.

International Maritime Organisation (IMO): Ship-based pollution Large number of conventions but either deal with ship safety or marine pollution Primary preventative instrument is MARPOL (International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto) 6 Annexes

- 1, 2 Oil and noxious liquid substances
- 3 Harmful substances carried at sea in packaged form
- 4 Sewage from ships
- 5 Garbage from ships
- 6 Air pollution from ships
- Specifies discharge standards
- Requires ships to be adequately designed, equipped, certified and inspected
- Obligation on Parties to provide port reception facilities for wastes from ships
- Obligation on Parties that ships under their flag comply with the regulations

Basel/Waigani

- To establish a strict control over transboundary movement of hazardous wastes
- Movement and Notification documentation from one EEZ to the next
- Definition of hazardous wastes: <u>belongs to Annex 1 (17 waste streams, eg</u>, timber treatment, paints, pharmaceuticals, hospitals, glues etc; 26 different constituents, eg, cadmium, arsenic, mercury, metal carbonyls, asbestos, etc.) <u>unless they do not possess the characteristics in Annex 2</u> (13 characteristics of HW, corrosive, explosive, flammable, oxidising, etc.)

SBM policy needs to be developed taking into account views of mining and environment sectors as well as local communities

EIA, economic and similar analyses to allow for better decision making

Transboundary nature of ecosystems, migratory fish species and pollution suggests a collaborative approach by Pacific island countries.

Needs to be rigorous governance process in place to ensure the integrity of the entire process and to ensure the benefits are used for the benefit of all