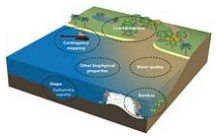

MARINE REMOTE SENSING - MAPPING CAPABILITY MATRIX BRG-UQ September 2014

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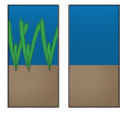
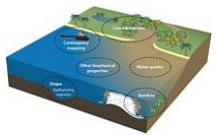
					Multi-spectral			Hyper-spectral			Photo grap	Radar		Laser green	Acous	Visual			
					Airborne	Satellite	Satellite	Airborne	Satellite	Satellite	Airborne	Airborne	Satellite	Airborne		Boat/ helicopter	AUV or ROV	Diving	Snorkelling
PIXEL SIZE Fine < 5m, Medium 5 m - 100 m, Coarse 100 m >					Fine	Fine	Medium	Fine	Medium	Coarse	Fine	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Parameter and environment				Icon															
presence/absence	Intertidal	Exposed			O$	O$	O	O$	f	OE	O	nf	nf	nf	nf	nf	nf	nf	nf
		Submerged	Clear		O$	O$	O	O$	f	OE	O	nf	nf	nf	nf	O	O	f	O
			Clear-turbid		O$	O$	O	O	f	nf	O	nf	nf	nf	nf	O	O	f	O
			Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	O	f	O
	Subtidal	Shallow	Clear		O$	O$	O	O$	f	OE	O	nf	nf	nf	fp	O	O$	O$	O
			Clear-turbid		O$	O$	O	O$	f	OE	O	nf	nf	nf	fp	O	O$	O$	O
			Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	fp	O	O$	O$	O
		Deep	Clear		O$	O$	O	O$	f	nf	nf	nf	nf	nf	f	O	O	O	nf
			Clear-turbid		O$	O$	nf	O$	f	nf	nf	nf	nf	nf	f	O	O	O	nf
			Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	f	nf	O	O	nf
		Exposed			O$	O$	O	O$	f	OE	f	nf	nf	nf	nf	nf	nf	nf	nf





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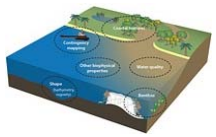
PIXEL SIZE Fine < 5m, Medium 5 m - 100 m, Coarse 100 m >						Fine	Fine	Medium	Fine	Medium	Coarse	Fine	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Parameter and environment					Icon															
% Cover	Intertidal	Submerged	Clear			O$	O$	O	O$	f	OE	O	nf	nf	nf	nf	O	O	f	O
			Clear-turbid			O$	O$	O	O$	f	OE	O	nf	nf	nf	nf	O	O	f	O
			Turbid			nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	O	nf	nf
	Subtidal	Shallow	Clear			O	O	O	O$	f	OE	O	nf	nf	nf	fp	O	O	O	nf
			Clear-turbid			O$	O$	O	O$	f	OE	O	nf	nf	nf	fp	O	O	O	nf
			Turbid			nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	fp	O	O	nf	nf
		Deep	Clear			O	O	O	O$	f	nf	nf	nf	nf	nf	f	O	O	O	nf
			Clear-turbid			nf	nf	O	O$	f	nf	nf	nf	nf	nf	f	O	O	O	nf
			Turbid			nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	f	nf	O	nf	nf
Percent cover																				
ies)	Intertidal	Exposed				O	O	nf	O	nf	nf	fp	nf	nf	nf	nf	nf	nf	nf	nf
			Clear			O	O	nf	O	nf	nf	fp	nf	nf	nf	nf	O	O	f	O



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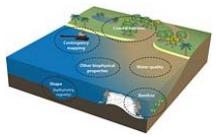
Parameter and environment					Icon															
Seagrass habitats	cover type (to spec	Intertidal	Submerged	Clear-turbid		O	O	nf	O	nf	nf	fp	nf	nf	nf	nf	O	O	f	O
				Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	O	nf	nf
		Subtidal	Shallow	Clear		O	O	nf	O	nf	nf	fp	nf	nf	nf	fp	O	O	O	nf
				Clear-turbid		O	O	nf	O	nf	nf	fp	nf	nf	nf	fp	O	O	O	nf
				Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	fp	O	O	nf	nf
			Deep	Clear		O	O	nf	O	nf	nf	fp	nf	nf	nf	f	nf	O	O	nf
				Clear-turbid		nf	nf	nf	O	nf	nf	nf	nf	nf	nf	f	nf	O	O	nf
				Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	f	nf	O	nf	nf
	ure type: ecies (eg inervis	Intertidal	Exposed			nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	nf	nf	nf
			Submerged	Clear		nf	nf	nf	nf	nf	nf	nf	n	n	n	n	O	nf	O	O
				Clear-turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	nf	nf	nf



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SENSOR Type / Platform						Icon	Passive							Active				Field			
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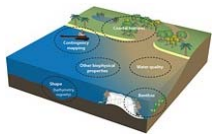
Parameter and environment																					
Seagrass physical structure: small growing cryptic species Halophila / Halodule uninervis (narrow))				Turbid			nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	f	nf
	Subtidal	Shallow		Clear			nf	nf	nf	nf	nf	nf	nf	n	n	n	n	nf	nf	O	O
				Clear-turbid			nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O
				Turbid			nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf
		Deep		Clear			nf	nf	nf	nf	nf	nf	nf	n	n	n	n	nf	nf	nf	O
				Clear-turbid			nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf
				Turbid			nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf
Structure type: like species Cymodocea, etc)	Intertidal	Exposed					O$	O$	O	O$	f	OE	f	nf	nf	nf	nf	O	nf	nf	nf
		Submerged		Clear			O$	O$	O	O$	f	OE	O	nf	nf	nf	nf	O	nf	f	O
				Clear-turbid			O$	O$	O	O$	f	OE	O	nf	nf	nf	nf	O	nf	f	O
				Turbid			nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	nf	f	O



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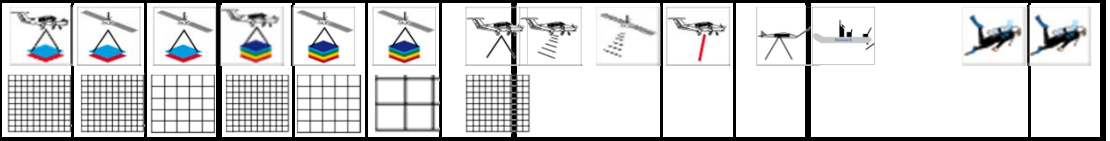
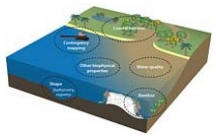
						Airborne	Satellite	Satellite	Airborne	Satellite	Satellite	Airborne	Airborne	Satellite	Airborne		Boat/ helicopter	AUV or ROV	Diving	Snorkelling
PIXEL SIZE Fine < 5m, Medium 5 m - 100 m, Coarse 100 m >						Fine	Fine	Medium	Fine	Medium	Coarse	Fine	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Parameter and environment					**Icon**															
Seagrass physical st large growing strap (Zostera capricorni, Enhalus e	Subtidal	Shallow	Clear		O	O	O	O$	f	OE	O	nf	nf	nf	fp	O	nf	O	nf
			Clear-turbid		O$	O$	O	O$	f	OE	O	nf	nf	nf	fp	O	nf	O	nf
			Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	fp	O	nf	O	nf
		Deep	Clear		O	O	O	O$	f	nf	nf	nf	nf	nf	f	O	nf	O	nf
			Clear-turbid		nf	nf	O	O$	f	nf	nf	nf	nf	nf	f	O	nf	O	nf
			Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	f	nf	nf	O	nf
nass	Intertidal	Exposed			O	O	nf	O	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf
		Submerged	Clear		f	O	nf	O	nf	nf	O	nf	nf	nf	nf	O	f	f	O
			Clear-turbid		f	O	nf	O	nf	nf	O	nf	nf	nf	nf	O	f	f	O
			Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	f	f	O
			Clear		O	O	nf	O	nf	nf	nf	nf	nf	nf	fp	O	O	O	nf



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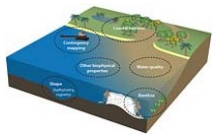
Parameter and environment					**Icon**															
bion	Biomass	Subtidal	Shallow	Clear-turbid		O	O	nf	O	nf	nf	nf	nf	nf	nf	fp	O	O	O	nf
				Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	fp	O	O	O	nf
			Deep	Clear		O	O	nf	O	nf	nf	nf	nf	nf	nf	f	nf	O	O	nf
				Clear-turbid		nf	nf	nf	O	nf	nf	nf	nf	nf	nf	f	nf	O	O	nf
				Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	f	nf	O	nf	nf
juscula)	over (above 40%)	Intertidal	Exposed			O$	O$	O	O$	f	OE	O	nf	nf	nf	nf	nf	nf	nf	nf
			Submerged	Clear		O$	O$	O	O$	f	OE	O	nf	nf	nf	nf	O	f	f	O
				Clear-turbid		O$	O$	O	O$	f	OE	O	nf	nf	nf	nf	O	f	f	O
				Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	f	f	O
			Shallow	Clear		O	O	O	O$	f	OE	O	nf	nf	nf	nf	O	O	O	nf
				Clear-turbid		O$	O$	O	O$	f	OE	O	nf	nf	nf	nf	O	O	O	nf



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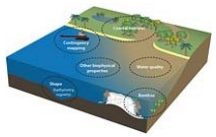
Parameter and environment					Icon															
Cyano bacterial bloom (e.g. *Lyngbya ma*	% c	Subtidal		Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	O	O	nf
			Deep	Clear		O$	O$	O	O$	f	OE	O	nf	nf	nf	nf	O	O	O	nf
				Clear-turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	O	nf
				Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	O	nf
	Composition and Biomass	Intertidal	Exposed			fp	fp	nf	fp	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf
			Submerged	Clear		fp	fp	nf	fp	nf	nf	nf	nf	nf	nf	nf	O	f	f	O
				Clear-turbid		fp	fp	nf	fp	nf	nf	nf	nf	nf	nf	nf	O	f	f	O
				Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	f	f	O
		Subtidal	Shallow	Clear		fp	fp	fp	fp	nf	nf	nf	nf	nf	nf	fp	O	O	O	nf
				Clear-turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	fp	O	O	O	nf
				Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	fp	O	O	O	nf



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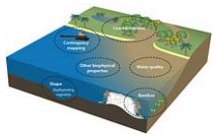
Parameter and environment				Icon															
Benthos		Subtidal	Deep	Clear	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	f	nf	O	O	nf
				Clear-turbid	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	f	nf	O	O	nf
				Turbid	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	f	nf	O	O	nf
	Cover type at reef system scale	Intertidal	Exposed		O$	O$	O$	O$	O	O	O$	nf	nf	nf	nf	nf	nf	nf	nf
			Submerged	Clear	O$	O$	O$	O$	O	O	O$	nf	nf	nf	nf	nf	nf	nf	nf
				Clear-turbid	O$	O$	O$	O$	O	O	O$	nf	nf	nf	nf	nf	nf	nf	nf
				Turbid	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf
		Subtidal	Shallow	Clear	O$	O$	O$	O$	O$	O	O	nf	nf	nf	nf	nf	nf	nf	nf
				Clear-turbid	O$	O$	O$	O$	O$	O	O	nf	nf	nf	nf	nf	nf	nf	nf
				Turbid	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf
				Clear	O$	O$	O$	O$	O$	O	nf	nf	nf	nf	f	nf	nf	nf	nf



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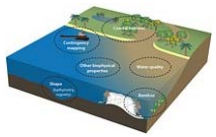
Parameter and environment					**Icon**															
cover type at reef scale		Deep	Clear-turbid			nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	f	nf	nf	nf	nf
			Turbid			nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	f	nf	nf	nf	nf
	Intertidal	Exposed				O$	O$	O	O$	O$	OE	O	nf	nf	f	nf	nf	nf	nf	nf
		Submerged	Clear			O$	O$	O	O$	O$	OE	O	nf	nf	f	nf	O	nf	nf	nf
			Clear-turbid			O$	O$	O$	O$	O$	OE	O	nf	nf	nf	nf	O	nf	nf	nf
			Turbid			nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	nf	nf	nf
	Subtidal	Shallow	Clear			O$	O$	O	O$	O$	OE	O	nf	nf	f	fp	O	nf	nf	nf
			Clear-turbid			O$	O$	O	O$	O$	OE	O	nf	nf	nf	fp	O	nf	nf	nf
			Turbid			nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	fp	O	nf	nf	nf
		Deep	Clear			O$	O$	O	O$	O$	OE	nf	nf	nf	nf	f	nf	nf	nf	nf
			Clear-turbid			O$	O$	O	O$	O$	OE	nf	nf	nf	nf	f	nf	nf	nf	nf



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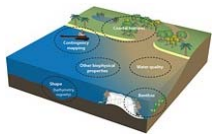
SENSOR Type / Platform		Passive							Active				Field			
		Multi-spectral			Hyper-spectral			Photo grap	Radar		Laser green	Acous	Visual			
		Airborne	Satellite	Satellite	Airborne	Satellite	Satellite	Airborne	Airborne	Satellite	Airborne		Boat/ helicopter	AUV or ROV	Diving	Snorkelling
PIXEL SIZE Fine < 5m, Medium 5 m - 100 m, Coarse 100 m >		Fine	Fine	Medium	Fine	Medium	Coarse	Fine	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Parameter and environment	Icon															
				Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	f	nf	nf	nf	nf
cover type at geomorphic zone scale		Intertidal	Exposed			O$	O$	O	O$	O$	OE	O	nf	nf	f	nf	nf	nf	nf	nf
			Submerged	Clear		O$	O$	O	O$	O$	OE	O	nf	nf	f	nf	O	O$	O$	O$
				Clear-turbid		O$	O$	O$	O$	O$	OE	O	nf	nf	nf	nf	O	O$	O$	O$
				Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	O$	O$	O$
		Subtidal	Shallow	Clear		O$	O$	O	O$	O$	OE	O	nf	nf	f	fp	O	O$	O$	nf
				Clear-turbid		O$	O$	O	O$	O$	OE	O	nf	nf	nf	fp	O	O$	O$	nf
				Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	fp	O	O$	O$	nf
			Deep	Clear		O$	O$	O	O$	O$	OE	nf	nf	nf	nf	f	nf	O$	O$	nf
				Clear-turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	f	nf	O$	O$	nf
				Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	f	nf	O$	nf	nf



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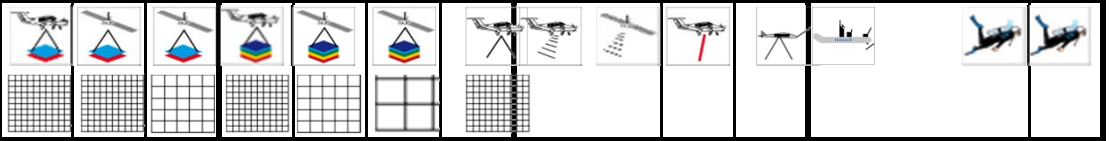
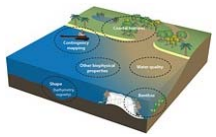
PIXEL SIZE Fine < 5m, Medium 5 m - 100 m, Coarse 100 m >					Fine	Fine	Medium	Fine	Medium	Coarse	Fine	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Parameter and environment				Icon															
% cover for benthic community  Percent cover 	Intertidal	Exposed			O$	O	nf	O$	nf	nf	O	nf	nf	f	nf	O	nf	nf	nf
		Submerged	Clear		O$	O	nf	O$	nf	nf	O	nf	nf	nf	nf	O	O$	O$	O$
			Clear-turbid		O$	O	nf	O$	nf	nf	O	nf	nf	nf	nf	O	O$	O$	O$
			Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O$	O$	O$
	Subtidal	Shallow	Clear		O$	O	nf	O$	nf	nf	O	nf	nf	nf	fp	O	O$	O$	f
			Clear-turbid		O$	O	nf	O$	nf	nf	O	nf	nf	nf	fp	O	O$	O$	f
			Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	fp	nf	O	nf	nf
		Deep	Clear		fp	fp	nf	fp	nf	nf	fp	nf	nf	nf	f	nf	O	O	nf
			Clear-turbid		fp	fp	nf	fp	nf	nf	fp	nf	nf	nf	f	nf	O	O	nf
			Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	f	nf	O	nf	nf
le		Exposed			nf	f	f	f	f	nf	nf	nf	nf	f	nf	nf	nf	nf	nf



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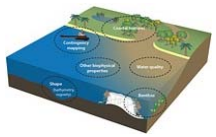
Parameter and environment				Icon															
cover type at benthic community sca	Intertidal	Submerged	Clear		nf	f	f	f	f	nf	nf	nf	nf	nf	nf	O	f	f	O
			Clear-turbid		nf	nf	nf	f	f	nf	nf	nf	nf	nf	nf	O	f	f	O
			Turbid		nf	nf	nf	f	f	nf	nf	nf	nf	nf	nf	O	f	f	O
	Subtidal	Shallow	Clear		nf	f	f	f	f	nf	nf	nf	nf	nf	fp	O	O	O	nf
			Clear-turbid		nf	nf	nf	f	f	nf	nf	nf	nf	nf	fp	O	O	O	nf
			Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	fp	O	O	O	nf
		Deep	Clear		nf	nf	nf	f	f	nf	nf	nf	nf	nf	f	nf	O	O	nf
			Clear-turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	f	nf	O	O	nf
			Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	f	nf	O	nf	nf
at Reef	Intertidal	Exposed			fp	nf	nf	nf	nf	nf	fp	nf	nf	nf	nf	nf	O$	O$	O$
			Clear		fp	nf	nf	nf	nf	nf	fp	nf	nf	nf	nf	nf	O$	O$	O$



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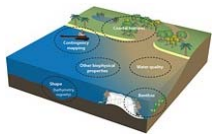
Parameter and environment				Icon															
Cover type Patch Scale	Intertidal	Submerged	Clear-turbid		fp	nf	nf	nf	nf	nf	fp	nf	nf	nf	nf	nf	O$	O$	O$
			Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O$	O$	O$
	Subtidal	Shallow	Clear		fp	nf	nf	nf	nf	nf	fp	nf	nf	nf	nf	nf	O$	O$	f
			Clear-turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O$	O$	f
			Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O$	O$	f
		Deep	Clear		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O$	O$	nf
			Clear-turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O$	O$	nf
			Turbid		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O$	O$	nf
Low Extent Coral Bleaching	Exposed				nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O$
	submerged				nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	f	nf	O$	O$	O$



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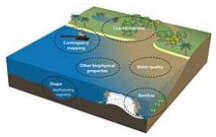
Parameter and environment	Icon															
e Extent Coral Bleaching	Exposed	fp	f	fp	f	f	fp	O	nf	nf	f	nf	nf	nf	nf	nf
	Intertidal / Submerged / Clear	nf	nf	nf	nf	nf	nf	O	nf	nf	nf	nf	O	f	f	O$
	Intertidal / Submerged / Clear-turbid	nf	nf	nf	nf	nf	nf	O	nf	nf	nf	nf	O	f	f	O$
	Intertidal / Submerged / Turbid	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	f	f	O
	Subtidal / Shallow / Clear	nf	nf	nf	f	nf	fp	O	nf	nf	nf	nf	O$	O$	O$	nf
	Subtidal / Shallow / Clear-turbid	nf	nf	nf	nf	nf	nf	O	nf	nf	nf	nf	O$	O$	O$	nf
	Subtidal / Shallow / Turbid	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	O	nf
	Subtidal / Deep / Clear	nf	nf	nf	f	nf	fp	fp	nf	nf	nf	nf	nf	O	O	nf
	Subtidal / Deep / Clear-turbid	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	O	nf
	Subtidal / Deep / Turbid	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	nf	nf
	Exposed	fp	f	fp	f	f	fp	O	nf	nf	f	nf	nf	nf	nf	nf



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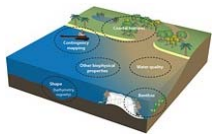
							Multi-spectral			Hyper-spectral			Photo grap	Radar		Laser green	Acous	Visual			
							Airborne	Satellite	Satellite	Airborne	Satellite	Satellite	Airborne	Airborne	Satellite	Airborne		Boat/ helicopter	AUV or ROV	Diving	Snorkelling
PIXEL SIZE Fine < 5m, Medium 5 m - 100 m, Coarse 100 m >							Fine	Fine	Medium	Fine	Medium	Coarse	Fine	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Parameter and environment																					
Severe Coral Bleaching		Intertidal	Submerged	Clear			fp	f	fp	f	f	fp	O	nf	nf	nf	nf	O$	f	f	O$
				Clear-turbid			fp	f	fp	f	f	fp	O	nf	nf	nf	nf	O$	f	f	O$
				Turbid			nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	f	f	O
		Subtidal	Shallow	Clear			fp	f	fp	f	f	fp	f	nf	nf	nf	nf	O$	O$	O$	f
				Clear-turbid			nf	nf	nf	nf	nf	nf	f	nf	nf	nf	nf	O$	O$	O$	f
				Turbid			nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	O	nf
			Deep	Clear			fp	f	fp	f	f	fp	O	nf	nf	nf	nf	nf	O	O	nf
				Clear-turbid			nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	O	nf
				Turbid			nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	nf	nf
Predicting Coral Bleaching		Degree Heating Weeks					nf	f	f	f	f	O	nf	nf	nf	nf	nf	f	nf	nf	nf
		Temperature					nf	f	f	f	f	O	nf	nf	nf	nf	nf	f	nf	nf	nf



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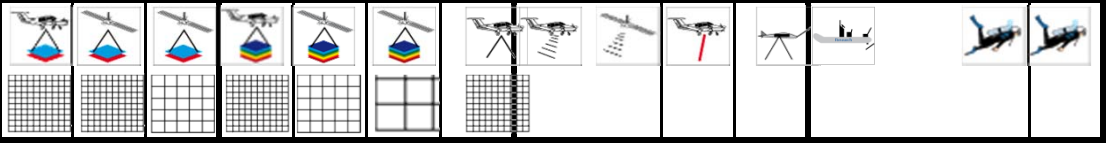
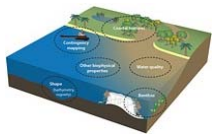
Parameter and environment	Icon															
Pre C Ble	Hotspots	nf	f	f	f	f	O	nf	nf	nf	nf	nf	f	nf	nf	nf
Event based mapping	River - sediment discharge plume mapping	O$	O$	O	O$	f	OE	O	nf	nf	nf	nf	O	nf	nf	nf
	Ship Grounding	O$	O	OE	O$	f	OE	O$	nf	nf	nf	O$	O	O$	O$	O
	Oil spill	O$	O	OE	O$	nf	OE	O$	O	O	nf	nf	O	nf	nf	nf
	Cyclone/Hurricane impact	O	O	nf	O$	nf	nf	O	nf	nf	nf	O$	O	O$	O$	O$
Mangroves 	% cover	O$	O	OE	O$	f	OE	O	O	O	O	nf	nf	nf	nf	nf
	Composition to species level	O$	O	OE	O$	f	nf	O	O	O	O	nf	nf	nf	nf	nf
	Biomass	O$	O	OE	O$	f	nf	O	O	O	O	nf	nf	nf	nf	nf



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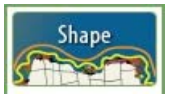
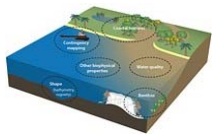
Parameter and environment					Icon															
Saltmarsh		% cover				O$	O	OE	O$	f	OE	O	O	O	O	nf	nf	nf	nf	nf
		Cover type				O$	O	OE	O$	f	nf	O	O	O	nf	nf	nf	nf	nf	nf
		Biomass				O$	O	OE	O$	f	nf	O	O	O	nf	nf	nf	nf	nf	nf
Coastline		Mean high and/or low water marks				O$	O	OE	O$	f	OE	O$	O	O	O	nf	nf	nf	nf	nf
Shape	Bathymetry 	Coastal	Deep	Brown		nf	nf	nf	nf	nf	nf	nf	nf	nf	fp	O	nf	O	nf	nf
				Blue/Green		nf	nf	nf	nf	nf	nf	nf	nf	nf	fp	O	nf	O	nf	nf
			Shallow	Blue/Green		O$	O$	O	O$	O	nf	nf	nf	nf	O	O	nf	O	nf	nf
		Ocean	Deep	Blue		nf	nf	nf	nf	nf	nf	nf	nf	nf	fp	O	nf	O	nf	nf
	Rugosity 	Coastal	Deep	Brown		nf	nf	nf	nf	nf	nf	nf	nf	nf	fp	O	nf	O	O	nf
				Blue/Green		nf	nf	nf	nf	nf	nf	nf	nf	nf	fp	O	nf	O	O	nf



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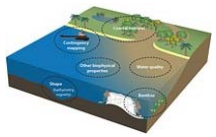
Parameter and environment					Icon															
			Shallow	Blue/Green		nf	nf	nf	O	nf	nf	nf	nf	nf	O	O	nf	O$	O$	nf
		Ocean	Deep	Blue		nf	nf	nf	nf	nf	nf	nf	nf	nf	fp	O	nf	O$	nf	nf
Water Colour	Suspended sediment concentration	Coastal	Deep	Brown		O$	O$	O	O$	f	OE	nf	nf	nf	nf	nf	O$	O$	nf	nf
				Blue/Green		O$	O$	O	O$	f	OE	nf	nf	nf	nf	nf	O$	O$	nf	nf
			Shallow	Blue/Green		nf	nf	nf	OS	f	nf	nf	nf	nf	nf	nf	O$	O$	nf	nf
		Ocean	Deep	Blue		O$	O$	O$	O$	f	O	nf	nf	nf	nf	nf	O$	O$	nf	nf
	Coloured dissolved organic matter concentration	Coastal	Deep	Brown		O$	O$	O	O$	f	OE	nf	nf	nf	nf	nf	O$	O$	nf	nf
				Blue/Green		O$	O$	O	O$	f	OE	nf	nf	nf	nf	nf	O$	O$	nf	nf
			Shallow	Blue/Green		nf	nf	nf	fp	f	nf	nf	nf	nf	nf	nf	O$	O$	nf	nf
		Ocean	Deep	Blue		O$	O$	O$	O$	f	O	nf	nf	nf	nf	nf	O$	O$	nf	nf
	Chlorophyll		Deep	Brown		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	O$	nf	nf



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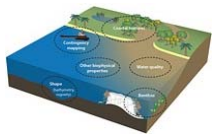
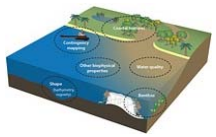
PIXEL SIZE Fine < 5m, Medium 5 m - 100 m, Coarse 100 m >						Fine	Fine	Medium	Fine	Medium	Coarse	Fine	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Parameter and environment					Icon															
Water Quality		concentration (Chlorophyll)	Coastal	Deep	Blue/Green	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	O$	nf	nf
				Shallow	Blue/Green	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	O$	nf	nf
			Ocean	Deep	Blue	O$	O$	O$	O$	f	O	nf	nf	nf	nf	nf	O$	O$	nf	nf
		Cyano bacterial blooms (other then Lyngbya)		% cover		O$	O$	O$	O$	f	O	nf	nf	nf	nf	nf	O	O$	nf	nf
				Composition and Biomass		nf	nf	nf	O$	f	O	nf	nf	nf	nf	nf	O	O$	nf	nf
al properties		Attenuation coefficient (Attenuation)	Coastal	Deep	Brown	O$	O$	O	O$	f	OE	nf	nf	nf	nf	nf	O$	O$	O$	nf
					Blue/Green	O$	O$	O	O$	f	O	nf	nf	nf	nf	nf	O$	O$	O$	nf
				Shallow	Blue/Green	nf	nf	nf	O$	f	nf	nf	nf	nf	nf	nf	O	O$	O$	nf
			Ocean	Deep	Blue	OE	OE	O	OP	f	O	nf	nf	nf	nf	nf	fp	O$	fp	nf
		Euphotic depth	Coastal	Deep	Brown	O$	O$	O	O$	O	O	nf	nf	nf	nf	nf	nf	O$	nf	nf
					Blue/Green	O$	O$	O	O$	O	O	nf	nf	nf	nf	nf	nf	O$	nf	nf



MARINE REMOTE SENSING - MAPPING CAPABILITY MATRIX BRG-UQ September 2014

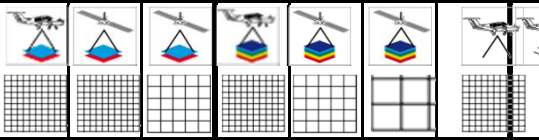
Table Key: O= operational, O$ = operational but cost prohibitive, f = feasible but not operational, nf =not feasible, fp=partly feasible, OE=possible if extent is bigger then several pixels

SENSOR Type / Platform						Passive							Active				Field			
						Multi-spectral			Hyper-spectral			Photo grap	Radar		Laser green	Acous	Visual			
						Airborne	Satellite	Satellite	Airborne	Satellite	Satellite	Airborne	Airborne	Satellite	Airborne		Boat/ helicopter	AUV or ROV	Diving	Snorkelling
PIXEL SIZE Fine < 5m, Medium 5 m - 100 m, Coarse 100 m >						Fine	Fine	Medium	Fine	Medium	Coarse	Fine	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Parameter and environment					Icon															
Hydro Optics	Euphotic depth		Shallow	Blue/Green		nf	nf	nf	O$	O	nf	nf	nf	nf	nf	nf	nf	O$	nf	nf
		Ocean	Deep	Blue		OE	OE	O	OE	O	O	nf	nf	nf	nf	nf	nf	O$	nf	nf
	Secchi depth	Coastal	Deep	Brown		O$	O$	O	O$	f	O	nf	nf	nf	nf	nf	O	O$	nf	nf
				Blue/Green		O$	O$	O	O$	f	O	nf	nf	nf	nf	nf	O	O$	nf	nf
			Shallow	Blue/Green		nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	nf	O	O$	nf	nf
	Secchi depth	Ocean	Deep	Blue		OE	OE	O	OE	f	O	nf	nf	nf	nf	nf	fp	O$	nf	nf
Other biophysical properties	Photosythetic Active Radiation (PAR)					nf	f	f	f	OS	O	nf	nf	nf	nf	nf	nf	f	f	nf
	Surface Temperature					nf	nf	f	f	OS	O	nf	nf	nf	nf	nf	O	nf	nf	nf
	Wave Height					nf	nf	nf	nf	nf	nf	nf	O	O	O	nf	nf	nf	nf	nf
	Surface Currents					nf	nf	nf	nf	nf	nf	nf	O	O	O	nf	nf	nf	nf	nf



MARINE REMOTE SENSING - MAPPING CAPABILITY MATRIX BRG-UQ September 2014

Table Key: O= operational, O$ = operational but cost prohibitive, f = feasible but not operational, nf =not feasible, fp=partly feasible, OE=possible if extent is bigger then several pixels

SENSOR Type / Platform		Passive							Active				Field			
		Multi-spectral			Hyper-spectral			Photo grap	Radar		Laser green	Acous	Visual			
		Airborne	Satellite	Satellite	Airborne	Satellite	Satellite	Airborne	Airborne	Satellite	Airborne		Boat/ helicopter	AUV or ROV	Diving	Snorkelling
PIXEL SIZE Fine < 5m, Medium 5 m - 100 m, Coarse 100 m >		Fine	Fine	Medium	Fine	Medium	Coarse	Fine	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Parameter and environment	Icon															
Surface Winds		nf	nf	nf	nf	nf	nf	nf	O	O	O	nf	nf	nf	nf	nf