

Supplementary Table 9.1 The table below shows of annual catches for the four categories of coastal fisheries in Pacific Island countries and territories (PICTs), in tonnes, and as percentage of total catch for 2007. Estimates for subsistence and commercial catches are provided for demersal fish and nearshore pelagic fish; targeted invertebrates fisheries are considered to be 100% commercial, and shallow subtidal and intertidal invertebrate fisheries are totally subsistence.

PICT	Demersal fish						Nearshore pelagic fish						Targeted invertebrates		Subtidal and intertidal invertebrates		Total catch	
	Subsistence		Commercial		Total		Subsistence		Commercial		Total		tonnes	%	tonnes	%		
	tonnes	%	tonnes	%	tonnes	%	tonnes	%	tonnes	%	tonnes	%						
Melanesia																		
Fiji	11,240	41.8	6210 ^d	23.1	17,450	64.9	2610	9.7	2660	9.9	5270 ^a	19.6	630	2.3	3550	13.2	26,900	
New Caledonia	1830	37.7	840	17.3	2670	55.1	350	7.2	210	4.3	560 ^a	11.5	300 ^e	6.2	1320	27.2	4850	
PNG	11,880	33.3	2640	7.4	14,520	40.7	12,000	33.6	1760	4.9	13,760 ^a	38.5	1300 ^f	3.6	6120	17.1	35,700	
Solomon Islands	7875	43.2	1050	5.8	8925	48.9	4500	24.7	1250 ^g	6.8	5750 ^a	31.5	950	5.2	2625	14.4	18,250	
Vanuatu	1450	43.1	280	8.3	1730	51.4	565	16.8	188	5.6	753 ^a	22.4	70	2.1	815	24.2	3368	
Micronesia																		
FSM	4630	36.7	1660	13.2	6290	49.9	2450	19.4	1110	8.8	3560 ^b	28.3	30	0.2	2720	21.6	12,600	
Guam	19	16.7	14	12.3	33	28.9	47	41.2	30	26.3	77 ^b	67.5	0	0.0	4	3.5	114	
Kiribati	9645	46.6	5430	26.2	15,075	72.8	2740	13.2	1510	7.3	4250 ^c	20.5	60	0.3	1315	6.4	20,700	
Marshall Islands	1850	49.3	567	15.1	2417	64.5	700	18.7	380	10.1	1080 ^a	28.8	3	0.1	250	6.7	3750	
Nauru	210	32.3	100	15.4	310	47.7	210	32.3	100	15.4	310 ^c	47.7	0	0.0	30	4.6	650	
Palau	490	23.2	460	21.7	950	44.9	375	17.7	305	14.4	680 ^a	32.2	100	4.7	385	18.2	2115	
CNMI	145	32.2	115	25.5	260	57.6	45	10.0	116	25.7	161 ^a	35.7	0	0.0	20	4.4	451	
Polynesia																		
American Samoa	68	43.9	24	15.5	92	59.4	36	23.2	11	7.1	47 ^a	30.3	0	0.0	16	10.3	155	
Cook Islands	93	23.3	53	13.3	146	36.5	160	40.0	80	20.0	240 ^c	60.0	0	0.0	14	3.5	400	
French Polynesia	2100	30.5	1566	22.8	3666	53.3	250	3.6	2332	33.9	2582 ^c	37.5	104	1.5	530	7.7	6882	
Niue	57	38.0	5	3.3	62	41.3	70	46.7	5	3.3	75 ^a	50.0	0	0.0	13	8.7	150	
Pitcairn Islands	5	41.7	5	41.7	10	83.3	1	8.3	0	0.0	1 ^a	8.3	0	0.0	1	8.3	12	
Samoa	1940	22.5	2479	28.7	4419	51.2	900	10.4	1650	19.2	2550 ^b	29.6	0	0.0	1655	19.2	8624	
Tokelau	182	48.5	0	0.0	182	48.5	150	40.0	0	0.0	150 ^c	40.0	0	0.0	43	11.5	375	
Tonga	1915	29.5	3330 ^h	51.2	5245	80.7	280	4.3	370	5.7	650 ^c	10.0	0	0.0	605	9.3	6500	
Tuvalu	690	56.8	147	12.1	837	68.9	247	20.3	79	6.5	326 ^b	26.8	0	0.0	52	4.3	1215	
Wallis and Futuna	635	66.1	83	8.6	718	74.7	85	8.8	21	2.2	106 ^a	11.0	17	1.8	120	12.5	961	
Total	58,949	38.1	27,058	17.5	86,007	55.6	28,771	18.6	14,167	9.2	42,938	27.8	3564	2.3	22,213	14.4	154,722	

a = Nearshore pelagic fishery dominated by non-tuna species; b = nearshore pelagic fishery comprised equally of non-tuna and tuna species; c = nearshore pelagic fishery dominated by tuna; d = includes deepwater snappers; e = includes mangrove crabs and spiny lobsters sold on local market; f = includes hundreds of tonnes of penaeid shrimp; g = includes 800 tonnes of baitfish; h = includes 700 tonnes of deepwater snappers.

Supplementary Table 12.1 The average annual catch and value of the surface tuna fishery for national fleets and foreign fleets in the exclusive economic zones (EEZs) of those Pacific Island countries and territories (PICTs) where the fishery operated between 1999 and 2008. The average total volume and value of the catch made by national fleets across the Western and Central Pacific Ocean as a whole is also shown, together with average annual landings by national and foreign fleets at ports within PICTs.

PICT	Average annual catch (tonnes)									Average annual value of catch (USD million)**			Average port landings (tonnes)***	
	National fleet					Foreign fleet				National fleet		Foreign fleet	National fleet	Foreign fleet
	SKJ	YFN	BET	Total EEZ	Total region	SKJ	YFN	BET	Total EEZ	Total EEZ	Total region	Total EEZ		
Melanesia														
Fiji	430	35	0	465	465	185	45	18	248	1.44	1.44	0.77	0	3939
PNG*	72,665	22,327	2941	97,933	158,594	177,766	39,923	4103	221,792	105	170.4	203	55,762	88,627
Solomon Islands*	14,222	6146	461	20,829	22,369	39,990	8603	853	49,449	19.7	21.1	46.7	8766	57,578
Vanuatu	0	0	0	0	43,523	52	22	3	77	0	43.5	0.06	0	193
Micronesia														
FSM*	2774	396	57	3227	19,247	130,286	19,960	2103	152,349	2.67	15.9	126	9796	196,053
Guam	0	0	0	0	0	17	0	0	17	0	0	0	0	0
Kiribati*	229	95	11	335	5332	141,473	33,125	6253	180,851	0.28	4.52	153	132	61,068
Marshall Islands*	2470	226	60	2756	35,777	20,357	1952	221	22,530	2.44	31.7	20.0	32,511	121,524
Nauru*	0	0	0	0	0	51,815	10,083	1165	63,063	0	0	52.4	0	2115
Palau*	0	0	0	0	0	1297	482	36	1815	0	0	1.83	0	203
Polynesia														
American Samoa	0	0	0	0	0	48	1	0	49	0	0	0.04	0	107,620
Cook Islands	0	0	0	0	0	561	69	20	650	0	0	0.44	0	0
French Polynesia	509	114	0	623	636	56	13	11	80	0.52	0.53	0.07	172	87
Samoa	0	0	0	0	0	51	6	3	60	0	0	0.03	0	363
Tokelau	0	0	0	0	0	2243	308	113	2664	0	0	2.00	0	0
Tuvalu*	0	0	0	0	0	22,407	2972	1000	26,379	0	0	22.6	0	0

* Parties to the Nauru Agreement; ** represents ex-vessel value calculated using the approach taken by Gillett (2009)⁴, where prices provided by the Forum Fisheries Agency are discounted by 15% to account for transshipping costs, with the exception of the locally based fleet in PNG where no product is transshipped and therefore no discount is applied; *** representative values only, derived from logsheet, port sampling and landings data. SKJ = skipjack tuna; YFN = yellowfin tuna; BET = bigeye tuna; note that New Caledonia, CNMI, Niue, Pitcairn Islands, Tonga and Wallis and Futuna are not included in this analysis because no catch was made in these PICTs by the surface fishery during this period.

Supplementary Table 12.2 Contributions of the surface tuna fishery to gross domestic product (GDP), and total government revenue (GR) through payment of access fees by distant water fishing nations, to Pacific Island countries and territories (PICTs) in USD million (USD m), and in percentage terms. Contributions to GDP relate only to fishing operations and do not include post-harvest activities.

PICT	GDP*	Contribution to GDP						Total government revenues and grants*	Foreign access fee revenue						
		Locally based purse-seine and pole-and-line fleets							Foreign access fee revenue						
		Estimate based on 1999–2008 average			2006**		2007**		1999***		2003**		2007***		
		USD m	USD m	% GDP	USD m	% GDP	USD m		% GDP	USD m	% GR	USD m	% GR	USD m	% GR
Melanesia															
Fiji	3290 ^{a,d}	0.72	0.02	0	0	0	0	920 ^{a,d}	0.21	0.02	0.15	0.02	0.26 [†]	0.03	
New Caledonia	8829 ^{a,d}	0	0	0	0	0	0	996 ^{b,m}	0	0	0	0	0	0	
PNG	5708 ^{a,f}	85.2	1.49	106.41	1.86	161	2.82	2599 ^{a,d}	5.86	0.23	15.70	0.60	14.97 [†]	0.58	
Solomon Islands	457 ^{a,f}	10.55	2.31	14.64	3.20	14.02	3.07	267 ^{a,d}	0.27	0.10	1.70	0.64	11.76 [†]	4.40	
Vanuatu	500 ^{a,d}	0	0	0	0	0	0	79 ^{a,f}	0.15	0.19	0.15	0.19	1.36	1.72	
Micronesia															
FSM	237 ^{a,d}	7.95	3.35	3.96	1.67	7.77	3.28	145 ^{a,d}	9.72	6.70	11.41	7.87	14.76	10.18	
Guam	3679 ^{a,k}	0	0	0	0	0	0	428 ^{b,k}	0	0	0	0	0	0	
Kiribati	71 ^{a,d}	0	0	0	0	0	0	51 ^{a,d}	18.51	36.29	21.37	41.90	21.36	41.88	
Marshall Islands	156 ^{a,d}	15.85	10.16	nea	nea	32.68	20.95	93 ^{a,e}	3.44	3.70	1.94	2.09	1.95	2.10	
Nauru	22 ^{a,g}	0	0	0	0	0	0	30 ^{a,c}	3.42	11.40	5.31	17.70	6.13 [†]	20.43	
Marianas Islands	633 ^{b,k}	0	0	0	0	0	0	193 ^{b,l}	0	0	0	0	0	0	
Palau	157 ^{a,f}	0	0	0	0	0	0	36 ^{a,e}	0.15	0.42	0.16	0.44	1.12	3.11	
Polynesia															
American Samoa	462 ^{b,d}	0	0	0	0	0	0	155 ^{b,e}	0	0	0	0	0	0	
Cook Islands	211 ^{a,d}	0	0	0	0	0	0	86 ^{a,c}	0.16	0.19	0.49	0.57	0.26 [†]	0.30	
French Polynesia	5478 ^{a,h}	0.27	0.005	nea	nea	nea	nea	865 ^{b,n}	0	0	0	0	0	0	
Niue	10 ^{a,j}	0	0	0	0	0	0	12 ^{a,e}	0.15	1.25	0.15	1.25	0.26 [†]	2.17	
Pitcairn Islands	nea	0	0	0	0	0	0	7 ^{a,d}	0	0	0	0	0	0	
Samoa	524 ^{a,d}	0	0	0	0	0	0	168 ^{a,c}	0.19	0.11	0.16	0.10	0.26 [†]	0.15	
Tokelau	nea	0	0	0	0	0	0	13 ^{a,c}	0.50	3.85	0.22	1.69	1.48 [†]	11.38	
Tonga	238 ^{a,g}	0	0	0	0	0	0	76 ^{a,c}	0.15	0.20	0.15	0.20	0.13 [†]	0.17	
Tuvalu	15 ^{a,k}	0	0	0	0	0	0	31 ^{a,d}	5.68	18.32	nea	nea	3.45	11.13	
Wallis and Futuna	188 ^{b,h}	0	0	0	0	0	0	nea	0	0	0	0	0	0	

* GDP and total government revenue estimates are taken from: (a) Gillett (2009)⁴; (b) CIA – The World Factbook (www.cia.gov/library/publications/the-world-factbook/index.html); (c) 2007/2008 financial year (FY); (d) 2007; (e) 2006/07 FY; (f) 2006; (g) 2005/2006 FY; (h) 2005; (i) 2004; (j) 2003; (k) 2002; (l) 2001/2002 FY; (m) 2001; (n) 1999; [†] estimates are for aggregate access fee revenues for foreign pole-and-line, purse-seine and longline fleets as provided by Gillett (2009)⁴ for 2007, 2006/2007 FY or 2007/2008 FY; ** derived from Gillett (2009)⁴; *** derived from Lewis (2004)¹¹; [†] indicates PICTs for which it is known that no access fee revenues were received from foreign longline fleets between 2006 and 2008 or which in 1999 and 2003 received more than 90% of their total access fee revenue from foreign fleets operating in the surface fishery; nea = no estimate available.

Supplementary Table 12.3 The average annual catch and value of the longline tuna fishery for national fleets and foreign fleets in the exclusive economic zones (EEZs) of those Pacific Island countries and territories (PICTs) where the fishery operated between 1999 and 2008. The average total volume and value of the catch made by national fleets across the Western and Central Pacific Ocean as a whole is also shown, together with average annual landings by national and foreign fleets at ports within PICTs.

PICT	Average annual catch (tonnes)									Average annual value of catch (USD million)*			Average port landings (tonnes)**	
	National fleet					Foreign fleet				National fleet		Foreign fleet	National fleet	Foreign fleet
	YFN	BET	ALB	Total EEZ	Total region	YFN	BET	ALB	Total EEZ	Total EEZ	Total region	Total EEZ		
Melanesia														
Fiji	1455	464	4722	6641	10,785	44	14	138	196	17.75	28.56	0.5	9995	11,274
New Caledonia	477	180	1183	1840	1879	3	0	5	8	0	5.41	0	1673	16
PNG	1608	234	921	2763	2769	77	11	46	134	10.65	10.68	0.44	2178	107
Solomon Islands	231	207	81	519	529	1538	510	2138	4186	2.33	2.37	12.54	496	140
Vanuatu	179	64	710	953	7156	687	151	3399	4237	2.46	18.11	10.02	8	36
Micronesia														
FSM	176	415	1	592	978	2177	3307	69	5553	3.15	5.19	26.05	567	1281
Guam	0	0	0	0	0	0.1	0.2	0	0.3	0	0	0	0	56
Kiribati	0.1	0.5	0	0.6	5.9	3182	5014	612	8808	0.04	0.04	37.82	0	44
Marshall Islands	10	38	2	50	49	946	1924	51	2921	0.3	0.3	14.4	54	2293
Nauru	2.2	2	1	5.2	5.2	0.6	0.8	0	1.4	0.02	0.02	0.01	0	0
CNMI	0	0	0	0	0	0	0.1	0	0.1	0	0	0	0	0
Palau	15	11	0	26	26.1	954	1285	141	2380	0.14	0.13	12	19	3299
Polynesia														
American Samoa	0	0	0	0	0	64	17	326	407	0	0	0.95	2630	10,284
Cook Islands	159	135	1138	1432	1567	8	7	57	72	3.56	3.95	0.16	176	31
French Polynesia	718	500	3137	4355	4626	79	195	20	294	12.17	12.26	1.03	3639	1078
Niue	11	5	39	55	55	2.6	0.7	15	18.3	0.15	0.16	0.04	46	16
Pitcairn Islands	0	0	0	0	0	0	0	0.5	0.5	0	0	0	0	0
Samoa	348	110	2409	2867	3531	1	1	1	3	6.45	7.99	0	843	109
Tokelau	0	0	0	0	0	1.1	1.5	2.9	5.5	0	0	0.02	0	0
Tonga	225	112	515	852	981	20	8	109	137	0.26	2.83	0.31	725	19
Tuvalu	0	0	0	0	0	289	215	147	651	0	0	2.32	0	2
Wallis and Futuna	0	0	0	0	0	25	9	134	168	0	0	0.4	0	0

* Represents ex-vessel value calculated using the approach taken by Gillett (2009)⁴, where prices provided by FFA (2009)⁶⁹ are discounted by 30% to account for transportation costs and increased by 10% to account for bycatch sales; Cook Islands is the exception due to the atypical marketing channels for the fish caught there;

** source: SPC Oceanic Fisheries Programme. YFN = yellowfin tuna; BET = bigeye tuna; ALB = albacore.

Supplementary Table 12.4 Contributions of the longline tuna fishery to gross domestic product (GDP), and total government revenue (GR) through payment of access fees by distant water fishing nations, to Pacific Island countries and territories (PICTs) in USD million (USD m), and in percentage terms. Contributions to GDP relate only to fishing operations and do not include post-harvest activities.

PICT	GDP*	Contribution to GDP of the locally based longline fleet				Total government revenue* (USD m)	Foreign access fee revenue			
		2006		2007			1999		2003	
	USD m	USD m	% GDP	USD m	% GDP	USD m	% GR	USD m	% GR	
Melanesia										
Fiji	3290 ^{a,d}	nea	nea	5.86	0.16	920 ^{a,d}	0	0	0.005	0.00
New Caledonia	8829 ^{a,d}	nea	nea	1.71	0.05	996 ^{b,m}	0	0	0	0
PNG	5708 ^{a,f}	2.65	0.03	2.73	0.03	2599 ^{a,d}	0	0	0	0
Solomon Islands	457 ^{a,f}	1.17	0.25	1.14	0.24	267 ^{a,d}	0	0	0	0
Vanuatu	500 ^{a,d}	0	0	0	0	79 ^{a,f}	0.18	0.23	nea	nea
Micronesia										
FSM	237 ^{a,d}	0.69	0.29	1.67	0.70	145 ^{a,d}	2.40	1.45	2.20	1.33
Guam	3679 ^{a,k}	0	0	0	0	428 ^{b,k}	0	0	0	0
Kiribati	71 ^{a,d}	0	0	0	0	51 ^{a,d}	3.46	6.18	nea	nea
Marshall Islands	156 ^{a,d}	nea	nea	3.17	1.96	93 ^{a,e}	0.87	0.71	1.43	1.16
Nauru	22 ^{a,g}	0	0	0	0	30 ^{a,c}	0	0	0	0
Marianas Islands	633 ^{b,k}	0	0	0	0	193 ^{b,l}	0	0	0	0
Palau	157 ^{a,f}	nea	nea	5.54	3.38	36 ^{a,e}	0.30	0.26	0.52	0.45
Polynesia										
American Samoa	462 ^{b,d}			2.83	0.61	155 ^{b,e}	0	0	0	0
Cook Islands	211 ^{a,d}	nea	nea	0.24	0.13	86 ^{a,c}	0.03	0.04	0.97	1.36
French Polynesia	5478 ^{a,h}	4.38	0.07	5.65	0.09	865 ^{b,n}	0	0	0	0
Niue	10 ^{a,j}	nea	nea	0.37	3.69	12 ^{a,e}	0.025	0.17	nea	nea
Pitcairn Islands	nea	0	0	0	0	7 ^{a,d}	0	0	0	0
Samoa	524 ^{a,d}	nea	nea	3.34	0.62	168 ^{a,c}	0	0	0.04	0.02
Tokelau	nea	0	0	0	0	13 ^{a,c}	0	0	0	0
Tonga	238 ^{a,g}	0.59	0.23	0.67	0.26	76 ^{a,c}	0	0	0.10	0.00
Tuvalu	15 ^{a,k}	0	0	0	0	31 ^{a,d}	0.32	1.45	nea	nea
Wallis and Futuna	188 ^{a,h}	0	0	0	0	nea	0	0	0	0

* GDP and total government revenue estimates are taken from: (a) Gillett (2009)*; (b) CIA – The World Factbook www.cia.gov/library/publications/the-world-factbook/index.html; (c) 2007/2008 financial year (FY); (d) 2007; (e) 2006/2007 FY; (f) 2006; (g) 2005/2006 FY; (h) 2005; (i) 2004; (j) 2003; (k) 2002; (l) 2001/2002 FY; (m) 2001; (n) 1999. nea = no estimate available.

Supplementary Table 12.5 Calculations for estimating the relative vulnerability of economic development and government revenue in Pacific Island countries and territories (PICTs) to projected changes in the catches of skipjack tuna under the B1 and A2 emissions scenarios in 2035.

PICT	Exposure (% change in catch)	Sensitivity			Potential impact		Adaptive capacity				AC index	1 - AC	Vulnerability index
		% GDP	% GR	Sensitivity index S = (GDP + GR/2)	PI = E x S	PI index	Health index	Education index	Governance index	Purchasing power index			
Melanesia													
PNG	3.1	1.49	0.58	1.04	3.21	0.00	0.1	0.67	0.26	0.01	0.26	0.74	0.00
Solomon Islands	3.2	2.31	4.4	3.36	10.74	0.01	0.2	0.88	0.33	0.00	0.35	0.65	0.01
Vanuatu	18.4	0	1.72	0.86	15.82	0.02	0.6	0.89	0.59	0.05	0.53	0.47	0.01
Micronesia													
FSM	14	3.35	10.18	6.77	94.71	0.12	0.52	0.97	0.56	0.05	0.52	0.48	0.06
Kiribati	36.8	0	41.88	20.94	770.59	1.00	0.27	0.97	0.55	0.00	0.45	0.55	0.45
Marshall Islands	24	10.16	2.1	6.13	147.12	0.19	0.54	0.95	0.51	0.08	0.52	0.48	0.10
Nauru	25.1	0	20.43	10.22	256.40	0.33	0.59	0.86	0.56	0.07	0.52	0.48	0.17
Palau	10.2	0	3.11	1.56	15.86	0.02	0.68	0.97	0.59	0.27	0.63	0.37	0.01
Polynesia													
Cook Islands	40.4	0	0.3	0.15	6.06	0.01	0.75	0.99	0.38	0.27	0.60	0.40	0.00
Samoa	44	0	0.15	0.08	3.30	0.00	0.78	0.96	0.63	0.08	0.61	0.39	0.00
Tokelau	60.8	0	11.38	5.69	345.95	0.45	0.58	0.99	0.75	0.01	0.58	0.42	0.26
Tonga	47	0	0.17	0.09	4.00	0.00	0.71	0.98	0.41	0.06	0.54	0.46	0.00
Tuvalu	36.8	0	11.13	5.57	204.79	0.27	0.44	0.99	0.58	0.04	0.51	0.49	0.14

GDP = gross domestic product; GR = government revenue; PI = potential impact; E = exposure; S = sensitivity; AC = adaptive capacity.

Supplementary Table 12.6 Calculations for estimating the relative vulnerability of economic development and government revenue in Pacific Island countries and territories (PICTs) to projected changes in the catches of skipjack tuna under the B1 emissions scenarios in 2100.

PICT	Exposure (% change in catch)		Sensitivity			Potential impact		Adaptive capacity				AC index	1 - AC	Vulnerability index
			% GDP	% GR	Sensitivity index S = (GDP + GR/2)	PI = E x S	PI index	Health index	Education index	Governance index	Purchasing power index			
Melanesia														
<i>PNG</i>	<i>(-)</i>	<i>0.6</i>	<i>1.49</i>	<i>0.58</i>	<i>1.04</i>	<i>10.97</i>	<i>0.01</i>	<i>0.1</i>	<i>0.67</i>	<i>0.26</i>	<i>0.01</i>	<i>0.26</i>	<i>0.74</i>	<i>0.01</i>
<i>Solomon Islands</i>	<i>(-)</i>	<i>5.5</i>	<i>2.31</i>	<i>4.4</i>	<i>3.36</i>	<i>18.45</i>	<i>0.02</i>	<i>0.2</i>	<i>0.88</i>	<i>0.33</i>	<i>0.00</i>	<i>0.35</i>	<i>0.65</i>	<i>0.01</i>
Vanuatu		15.1	0	1.72	0.86	12.99	0.01	0.6	0.89	0.59	0.05	0.53	0.47	0.01
Micronesia														
FSM		4.8	3.35	10.18	6.77	32.47	0.03	0.52	0.97	0.56	0.05	0.52	0.48	0.02
Kiribati		43.1	0	41.88	20.94	902.51	1.00	0.27	0.97	0.55	0.00	0.45	0.55	0.45
Marshall Islands		24.2	10.16	2.1	6.13	148.35	0.16	0.54	0.95	0.51	0.08	0.52	0.48	0.08
Nauru		19.7	0	20.43	10.22	201.24	0.22	0.59	0.86	0.56	0.07	0.52	0.48	0.12
Palau		1.7	0	3.11	1.56	2.64	0.00	0.68	0.97	0.59	0.27	0.63	0.37	0.00
Polynesia														
Cook Islands		50.2	0	0.3	0.15	7.53	0.01	0.75	0.99	0.38	0.27	0.60	0.40	0.00
Samoa		49.2	0	0.15	0.08	3.69	0.00	0.78	0.96	0.63	0.08	0.61	0.39	0.00
Tokelau		69	0	11.38	5.69	392.61	0.43	0.58	0.99	0.75	0.01	0.58	0.42	0.25
Tonga		50.2	0	0.17	0.09	4.27	0.00	0.71	0.98	0.41	0.06	0.54	0.46	0.00
Tuvalu		40.9	0	11.13	5.57	227.61	0.25	0.44	0.99	0.58	0.04	0.51	0.49	0.13

GDP = gross domestic product; GR = government revenue; PI = potential impact; E = exposure; S = sensitivity; AC = adaptive capacity; countries with figures in italic indicate a projected decrease in catch.

Supplementary Table 12.7 Calculations for estimating the relative vulnerability of economic development and government revenue in Pacific Island countries and territories (PICTs) to projected changes in the catches of skipjack tuna under the A2 emissions scenarios in 2100.

PICT	Exposure (% change in catch)	Sensitivity			Potential impact		Adaptive capacity				AC index	1 - AC	Vulnerability index
		% GDP	% GR	Sensitivity index S = (GDP + GR/2)	PI = E x S	PI index	Health index	Education index	Governance index	Purchasing power index			
Melanesia													
<i>PNG</i>	<i>(-) 30.2</i>	<i>1.49</i>	<i>0.58</i>	<i>1.04</i>	<i>31.26</i>	<i>0.05</i>	<i>0.1</i>	<i>0.67</i>	<i>0.26</i>	<i>0.01</i>	<i>0.26</i>	<i>0.74</i>	<i>0.04</i>
<i>Solomon Islands</i>	<i>(-) 15.4</i>	<i>2.31</i>	<i>4.4</i>	<i>3.36</i>	<i>51.67</i>	<i>0.09</i>	<i>0.2</i>	<i>0.88</i>	<i>0.33</i>	<i>0.00</i>	<i>0.35</i>	<i>0.65</i>	<i>0.06</i>
<i>Vanuatu</i>	<i>26.1</i>	<i>0</i>	<i>1.72</i>	<i>0.86</i>	<i>22.45</i>	<i>0.04</i>	<i>0.6</i>	<i>0.89</i>	<i>0.59</i>	<i>0.05</i>	<i>0.53</i>	<i>0.47</i>	<i>0.02</i>
Micronesia													
<i>FSM</i>	<i>(-) 15.8</i>	<i>3.35</i>	<i>10.18</i>	<i>6.77</i>	<i>106.89</i>	<i>0.21</i>	<i>0.52</i>	<i>0.97</i>	<i>0.56</i>	<i>0.05</i>	<i>0.52</i>	<i>0.48</i>	<i>0.10</i>
<i>Kiribati</i>	<i>24.1</i>	<i>0</i>	<i>41.88</i>	<i>20.94</i>	<i>504.65</i>	<i>1.00</i>	<i>0.27</i>	<i>0.97</i>	<i>0.55</i>	<i>0.00</i>	<i>0.45</i>	<i>0.55</i>	<i>0.45</i>
<i>Marshall Islands</i>	<i>9.8</i>	<i>10.16</i>	<i>2.1</i>	<i>6.13</i>	<i>60.07</i>	<i>0.11</i>	<i>0.54</i>	<i>0.95</i>	<i>0.51</i>	<i>0.08</i>	<i>0.52</i>	<i>0.48</i>	<i>0.06</i>
<i>Nauru</i>	<i>(-) 1.2</i>	<i>0</i>	<i>20.43</i>	<i>10.22</i>	<i>12.26</i>	<i>0.02</i>	<i>0.59</i>	<i>0.86</i>	<i>0.56</i>	<i>0.07</i>	<i>0.52</i>	<i>0.48</i>	<i>0.01</i>
<i>Palau</i>	<i>(-) 26.9</i>	<i>0</i>	<i>3.11</i>	<i>1.56</i>	<i>41.83</i>	<i>0.08</i>	<i>0.68</i>	<i>0.97</i>	<i>0.59</i>	<i>0.27</i>	<i>0.63</i>	<i>0.37</i>	<i>0.03</i>
Polynesia													
<i>Cook Islands</i>	<i>47.4</i>	<i>0</i>	<i>0.3</i>	<i>0.15</i>	<i>7.11</i>	<i>0.01</i>	<i>0.75</i>	<i>0.99</i>	<i>0.38</i>	<i>0.27</i>	<i>0.60</i>	<i>0.40</i>	<i>0.00</i>
<i>Samoa</i>	<i>54.9</i>	<i>0</i>	<i>0.15</i>	<i>0.08</i>	<i>4.12</i>	<i>0.00</i>	<i>0.78</i>	<i>0.96</i>	<i>0.63</i>	<i>0.08</i>	<i>0.61</i>	<i>0.39</i>	<i>0.00</i>
<i>Tokelau</i>	<i>63.2</i>	<i>0</i>	<i>11.38</i>	<i>5.69</i>	<i>359.61</i>	<i>0.71</i>	<i>0.58</i>	<i>0.99</i>	<i>0.75</i>	<i>0.01</i>	<i>0.58</i>	<i>0.42</i>	<i>0.41</i>
<i>Tonga</i>	<i>58.5</i>	<i>0</i>	<i>0.17</i>	<i>0.09</i>	<i>4.97</i>	<i>0.00</i>	<i>0.71</i>	<i>0.98</i>	<i>0.41</i>	<i>0.06</i>	<i>0.54</i>	<i>0.46</i>	<i>0.00</i>
<i>Tuvalu</i>	<i>(-) 25</i>	<i>0</i>	<i>11.13</i>	<i>5.57</i>	<i>139.13</i>	<i>0.27</i>	<i>0.44</i>	<i>0.99</i>	<i>0.58</i>	<i>0.04</i>	<i>0.51</i>	<i>0.49</i>	<i>0.13</i>

GDP = gross domestic product; GR = government revenue; PI = potential impact; E = exposure; S = sensitivity; AC = adaptive capacity; countries with figures in italic indicate a projected decrease in catch.

Supplementary Table 12.8 Calculations for estimating the relative vulnerability of economic development and government revenue in Pacific Island countries and territories (PICTs) to projected changes in the catches of bigeye tuna under the B1 and A2 emissions scenarios in 2035.

PICT	Exposure (% change in catch)	Sensitivity			Potential impact		Adaptive capacity				AC index	1 - AC	Vulnerability index
		% GDP	% GR	Sensitivity index S = (GDP + GR/2)	PI = E x S	PI index	Health index	Education index	Governance index	Purchasing power index			
Melanesia													
Fiji	0.8	0.16	0	0.08	0.06	0.01	0.57	0.97	0.32	0.09	0.49	0.51	0.00
New Caledonia	1.1	0.05	0	0.03	0.03	0.00	0.94	0.99	0.43	1	0.84	0.16	0.00
<i>PNG</i>	<i>(-) 4.5</i>	<i>0.03</i>	<i>0</i>	<i>0.02</i>	<i>0.07</i>	<i>0.01</i>	<i>0.1</i>	<i>0.67</i>	<i>0.26</i>	<i>0.01</i>	<i>0.26</i>	<i>0.74</i>	<i>0.00</i>
Solomon Islands	0.1	0.24	0	0.12	0.01	0.00	0.2	0.88	0.33	0.00	0.35	0.65	0.00
<i>Vanuatu</i>	<i>(-) 3</i>	<i>0</i>	<i>0.23</i>	<i>0.12</i>	<i>0.35</i>	<i>0.03</i>	<i>0.6</i>	<i>0.89</i>	<i>0.59</i>	<i>0.05</i>	<i>0.53</i>	<i>0.47</i>	<i>0.02</i>
Micronesia													
<i>FSM</i>	<i>(-) 3.5</i>	<i>0.7</i>	<i>1.33</i>	<i>1.02</i>	<i>3.55</i>	<i>0.34</i>	<i>0.52</i>	<i>0.97</i>	<i>0.56</i>	<i>0.05</i>	<i>0.52</i>	<i>0.48</i>	<i>0.16</i>
<i>Kiribati</i>	<i>(-) 0.7</i>	<i>0</i>	<i>6.18</i>	<i>3.09</i>	<i>2.16</i>	<i>0.21</i>	<i>0.27</i>	<i>0.97</i>	<i>0.55</i>	<i>0.00</i>	<i>0.45</i>	<i>0.55</i>	<i>0.11</i>
<i>Marshall Islands</i>	<i>(-) 3.1</i>	<i>1.96</i>	<i>1.16</i>	<i>1.56</i>	<i>4.84</i>	<i>0.46</i>	<i>0.54</i>	<i>0.95</i>	<i>0.51</i>	<i>0.08</i>	<i>0.52</i>	<i>0.48</i>	<i>0.22</i>
<i>Palau</i>	<i>(-) 3.9</i>	<i>3.38</i>	<i>0.45</i>	<i>1.92</i>	<i>7.47</i>	<i>0.72</i>	<i>0.68</i>	<i>0.97</i>	<i>0.59</i>	<i>0.27</i>	<i>0.63</i>	<i>0.37</i>	<i>0.27</i>
Polynesia													
<i>American Samoa</i>	<i>(-) 4.7</i>	<i>0.61</i>	<i>0</i>	<i>0.31</i>	<i>1.43</i>	<i>0.14</i>	<i>0.81</i>		<i>0.76</i>	<i>0.22</i>	<i>0.45</i>	<i>0.55</i>	<i>0.08</i>
<i>Cook Islands</i>	<i>(-) 3</i>	<i>0.13</i>	<i>1.36</i>	<i>0.75</i>	<i>2.24</i>	<i>0.21</i>	<i>0.75</i>	<i>0.99</i>	<i>0.38</i>	<i>0.27</i>	<i>0.60</i>	<i>0.40</i>	<i>0.09</i>
<i>French Polynesia</i>	<i>(-) 1.6</i>	<i>0.09</i>	<i>0</i>	<i>0.05</i>	<i>0.07</i>	<i>0.01</i>	<i>0.91</i>	<i>0.99</i>	<i>0.43</i>	<i>0.74</i>	<i>0.77</i>	<i>0.23</i>	<i>0.00</i>
<i>Niue</i>	<i>(-) 5.4</i>	<i>3.69</i>	<i>0.17</i>	<i>1.93</i>	<i>10.42</i>	<i>1.00</i>	<i>0.93</i>	<i>0.99</i>	<i>0.38</i>	<i>0.177</i>	<i>0.62</i>	<i>0.38</i>	<i>0.38</i>
Samoa	1.4	0.62	0.02	0.32	0.45	0.04	0.78	0.96	0.63	0.08	0.61	0.39	0.03
<i>Tonga</i>	<i>(-) 4</i>	<i>0.26</i>	<i>0</i>	<i>0.13</i>	<i>0.52</i>	<i>0.05</i>	<i>0.71</i>	<i>0.98</i>	<i>0.41</i>	<i>0.06</i>	<i>0.54</i>	<i>0.46</i>	<i>0.02</i>
Tuvalu	2.9	0	1.45	0.73	2.10	0.20	0.44	0.99	0.58	0.04	0.51	0.49	0.10

GDP = gross domestic product; GR = government revenue; PI = potential impact; E = exposure; S = sensitivity; AC = adaptive capacity; countries with figures in italic indicate a projected decrease in catch.

Supplementary Table 12.9 Calculations for estimating the relative vulnerability of economic development and government revenue in Pacific Island countries and territories (PICTs) to projected changes in the catches of bigeye tuna under the B1 emissions scenarios in 2100.

PICT	Exposure (% change in catch)		Sensitivity			Potential impact		Adaptive capacity				AC index	1 - AC	Vulnerability index
			% GDP	% GR	Sensitivity index S = (GDP + GR/2)	PI = E x S	PI index	Health index	Education index	Governance index	Purchasing power index			
Melanesia														
Fiji	0.7	0.16	0	0.08	0.06	0.00	0.57	0.97	0.32	0.09	0.49	0.51	0.00	
New Caledonia	1.1	0.05	0	0.03	0.03	0.00	0.94	0.99	0.43	1	0.84	0.16	0.00	
<i>PNG</i>	<i>(-) 13</i>	<i>0.03</i>	<i>0</i>	<i>0.02</i>	<i>0.20</i>	<i>0.01</i>	<i>0.1</i>	<i>0.67</i>	<i>0.26</i>	<i>0.01</i>	<i>0.26</i>	<i>0.74</i>	<i>0.01</i>	
<i>Solomon Islands</i>	<i>(-) 2.9</i>	<i>0.24</i>	<i>0</i>	<i>0.12</i>	<i>0.35</i>	<i>0.01</i>	<i>0.2</i>	<i>0.88</i>	<i>0.33</i>	<i>0.00</i>	<i>0.35</i>	<i>0.65</i>	<i>0.01</i>	
<i>Vanuatu</i>	<i>(-) 6.1</i>	<i>0</i>	<i>0.23</i>	<i>0.12</i>	<i>0.70</i>	<i>0.03</i>	<i>0.6</i>	<i>0.89</i>	<i>0.59</i>	<i>0.05</i>	<i>0.53</i>	<i>0.47</i>	<i>0.01</i>	
Micronesia														
<i>FSM</i>	<i>(-) 11.5</i>	<i>0.7</i>	<i>1.33</i>	<i>1.02</i>	<i>11.67</i>	<i>0.54</i>	<i>0.52</i>	<i>0.97</i>	<i>0.56</i>	<i>0.05</i>	<i>0.52</i>	<i>0.48</i>	<i>0.26</i>	
<i>Kiribati</i>	<i>(-) 5.4</i>	<i>0</i>	<i>6.18</i>	<i>3.09</i>	<i>16.69</i>	<i>0.78</i>	<i>0.27</i>	<i>0.97</i>	<i>0.55</i>	<i>0.00</i>	<i>0.45</i>	<i>0.55</i>	<i>0.43</i>	
<i>Marshall Islands</i>	<i>(-) 9.6</i>	<i>1.96</i>	<i>1.16</i>	<i>1.56</i>	<i>14.98</i>	<i>0.70</i>	<i>0.54</i>	<i>0.95</i>	<i>0.51</i>	<i>0.08</i>	<i>0.52</i>	<i>0.48</i>	<i>0.33</i>	
<i>Palau</i>	<i>(-) 11.2</i>	<i>3.38</i>	<i>0.45</i>	<i>1.92</i>	<i>21.45</i>	<i>1.00</i>	<i>0.68</i>	<i>0.97</i>	<i>0.59</i>	<i>0.27</i>	<i>0.63</i>	<i>0.37</i>	<i>0.37</i>	
Polynesia														
<i>American Samoa</i>	<i>(-) 7.9</i>	<i>0.61</i>	<i>0</i>	<i>0.31</i>	<i>2.41</i>	<i>0.11</i>	<i>0.81</i>		<i>0.76</i>	<i>0.22</i>	<i>0.45</i>	<i>0.55</i>	<i>0.06</i>	
<i>Cook Islands</i>	<i>(-) 7.8</i>	<i>0.13</i>	<i>1.36</i>	<i>0.75</i>	<i>5.81</i>	<i>0.27</i>	<i>0.75</i>	<i>0.99</i>	<i>0.38</i>	<i>0.27</i>	<i>0.60</i>	<i>0.40</i>	<i>0.11</i>	
<i>French Polynesia</i>	<i>(-) 7.7</i>	<i>0.09</i>	<i>0</i>	<i>0.05</i>	<i>0.35</i>	<i>0.01</i>	<i>0.91</i>	<i>0.99</i>	<i>0.43</i>	<i>0.74</i>	<i>0.77</i>	<i>0.23</i>	<i>0.00</i>	
<i>Niue</i>	<i>(-) 7.8</i>	<i>3.69</i>	<i>0.17</i>	<i>1.93</i>	<i>15.05</i>	<i>0.70</i>	<i>0.93</i>	<i>0.99</i>	<i>0.38</i>	<i>0.177</i>	<i>0.62</i>	<i>0.38</i>	<i>0.27</i>	
Samoa	1.4	0.62	0.02	0.32	0.45	0.02	0.78	0.96	0.63	0.08	0.61	0.39	0.01	
<i>Tonga</i>	<i>(-) 5.1</i>	<i>0.26</i>	<i>0</i>	<i>0.13</i>	<i>0.66</i>	<i>0.03</i>	<i>0.71</i>	<i>0.98</i>	<i>0.41</i>	<i>0.06</i>	<i>0.54</i>	<i>0.46</i>	<i>0.01</i>	
Tuvalu	2.2	0	1.45	0.73	1.60	0.15	0.44	0.99	0.58	0.04	0.51	0.49	0.08	

GDP = gross domestic product; GR = government revenue; PI = potential impact; E = exposure; S = sensitivity; AC = adaptive capacity; countries with figures in italic indicate a projected decrease in catch.

Supplementary Table 12.10 Calculations for estimating the relative vulnerability of economic development and government revenue in Pacific Island countries and territories (PICTs) to projected changes in the catches of bigeye tuna under the A2 emissions scenarios in 2100.

PICT	Exposure (% change in catch)		Sensitivity			Potential impact		Adaptive capacity				AC index	1 - AC	Vulnerability index
			% GDP	% GR	Sensitivity index S = (GDP + GR/2)	PI = E x S	PI index	Health index	Education index	Governance index	Purchasing power index			
Melanesia														
<i>Fiji</i>	<i>(-)</i>	<i>1.4</i>	<i>0.16</i>	<i>0</i>	<i>0.08</i>	<i>0.11</i>	<i>0.00</i>	<i>0.57</i>	<i>0.97</i>	<i>0.32</i>	<i>0.09</i>	<i>0.49</i>	<i>0.51</i>	<i>0.00</i>
<i>New Caledonia</i>	<i>6</i>	<i>0.05</i>	<i>0</i>	<i>0.03</i>	<i>0.15</i>	<i>0.00</i>	<i>0.94</i>	<i>0.99</i>	<i>0.43</i>	<i>1</i>	<i>0.84</i>	<i>0.16</i>	<i>0.00</i>	
<i>PNG</i>	<i>(-)</i>	<i>27.9</i>	<i>0.03</i>	<i>0</i>	<i>0.02</i>	<i>0.42</i>	<i>0.00</i>	<i>0.1</i>	<i>0.67</i>	<i>0.26</i>	<i>0.01</i>	<i>0.26</i>	<i>0.74</i>	<i>0.00</i>
<i>Solomon Islands</i>	<i>(-)</i>	<i>7.3</i>	<i>0.24</i>	<i>0</i>	<i>0.12</i>	<i>0.88</i>	<i>0.01</i>	<i>0.2</i>	<i>0.88</i>	<i>0.33</i>	<i>0.00</i>	<i>0.35</i>	<i>0.65</i>	<i>0.01</i>
<i>Vanuatu</i>	<i>(-)</i>	<i>9.7</i>	<i>0</i>	<i>0.23</i>	<i>0.12</i>	<i>1.12</i>	<i>0.01</i>	<i>0.6</i>	<i>0.89</i>	<i>0.59</i>	<i>0.05</i>	<i>0.53</i>	<i>0.47</i>	<i>0.01</i>
Micronesia														
<i>FSM</i>	<i>(-)</i>	<i>32.5</i>	<i>0.7</i>	<i>1.33</i>	<i>1.02</i>	<i>32.99</i>	<i>0.38</i>	<i>0.52</i>	<i>0.97</i>	<i>0.56</i>	<i>0.05</i>	<i>0.52</i>	<i>0.48</i>	<i>0.18</i>
<i>Kiribati</i>	<i>(-)</i>	<i>16.6</i>	<i>0</i>	<i>6.18</i>	<i>3.09</i>	<i>51.29</i>	<i>0.59</i>	<i>0.27</i>	<i>0.97</i>	<i>0.55</i>	<i>0.00</i>	<i>0.45</i>	<i>0.55</i>	<i>0.33</i>
<i>Marshall Islands</i>	<i>(-)</i>	<i>26.9</i>	<i>1.96</i>	<i>1.16</i>	<i>1.56</i>	<i>41.96</i>	<i>0.48</i>	<i>0.54</i>	<i>0.95</i>	<i>0.51</i>	<i>0.08</i>	<i>0.52</i>	<i>0.48</i>	<i>0.23</i>
<i>Palau</i>	<i>(-)</i>	<i>45.2</i>	<i>3.38</i>	<i>0.45</i>	<i>1.92</i>	<i>86.56</i>	<i>1.00</i>	<i>0.68</i>	<i>0.97</i>	<i>0.59</i>	<i>0.27</i>	<i>0.63</i>	<i>0.37</i>	<i>0.37</i>
Polynesia														
<i>American Samoa</i>	<i>(-)</i>	<i>17.9</i>	<i>0.61</i>	<i>0</i>	<i>0.31</i>	<i>5.46</i>	<i>0.06</i>	<i>0.81</i>	<i>0.76</i>	<i>0.22</i>	<i>0.45</i>	<i>0.55</i>	<i>0.03</i>	
<i>Cook Islands</i>	<i>(-)</i>	<i>15.5</i>	<i>0.13</i>	<i>1.36</i>	<i>0.75</i>	<i>11.55</i>	<i>0.13</i>	<i>0.75</i>	<i>0.99</i>	<i>0.38</i>	<i>0.27</i>	<i>0.60</i>	<i>0.40</i>	<i>0.05</i>
<i>French Polynesia</i>	<i>(-)</i>	<i>12.5</i>	<i>0.09</i>	<i>0</i>	<i>0.05</i>	<i>0.56</i>	<i>0.01</i>	<i>0.91</i>	<i>0.99</i>	<i>0.43</i>	<i>0.74</i>	<i>0.77</i>	<i>0.23</i>	<i>0.00</i>
<i>Niue</i>	<i>(-)</i>	<i>14.7</i>	<i>3.69</i>	<i>0.17</i>	<i>1.93</i>	<i>28.37</i>	<i>0.33</i>	<i>0.93</i>	<i>0.99</i>	<i>0.38</i>	<i>0.177</i>	<i>0.62</i>	<i>0.38</i>	<i>0.12</i>
<i>Samoa</i>	<i>(-)</i>	<i>4.2</i>	<i>0.62</i>	<i>0.02</i>	<i>0.32</i>	<i>1.34</i>	<i>0.01</i>	<i>0.78</i>	<i>0.96</i>	<i>0.63</i>	<i>0.08</i>	<i>0.61</i>	<i>0.39</i>	<i>0.01</i>
<i>Tonga</i>	<i>(-)</i>	<i>10.3</i>	<i>0.26</i>	<i>0</i>	<i>0.13</i>	<i>1.34</i>	<i>0.01</i>	<i>0.71</i>	<i>0.98</i>	<i>0.41</i>	<i>0.06</i>	<i>0.54</i>	<i>0.46</i>	<i>0.01</i>
<i>Tuvalu</i>	<i>(-)</i>	<i>6.2</i>	<i>0</i>	<i>1.45</i>	<i>0.73</i>	<i>4.50</i>	<i>0.05</i>	<i>0.44</i>	<i>0.99</i>	<i>0.58</i>	<i>0.04</i>	<i>0.51</i>	<i>0.49</i>	<i>0.02</i>

GDP = gross domestic product; GR = government revenue; PI = potential impact; E = exposure; S = sensitivity; AC = adaptive capacity; countries with figures in italic indicate a projected decrease in catch.

Supplementary Table 12.11 Calculations of the fisheries production (fish and invertebrates) associated with coral reefs (Prodn.) projected to be available per person for Pacific Island countries and territories (PICTs) in Group 1 under the B1/A2 emissions scenarios in 2035.

PICT	Reef area (km ²)	Estimated annual Prodn. (tonnes)*	Population in 2035	Prodn. per person per year (kg)	% total Prodn.					Prodn. available per person (kg)						Total Prodn. per person (kg)	
					DF	NSP	NSP non tuna	SII	DF + NSP non tuna + SII	Without climate change			With climate change				
										DF	NSP non tuna	SII	DF	NSP non tuna	SII		
Melanesia																	
New Caledonia	35,925	107,775	322,538	334	0.55	0.12	0.09	0.27	0.91	202	32	100	196	30	100	326	
Micronesia																	
Marshall Islands	13,930	41,790	62,700	667	0.65	0.29	0.22	0.07	0.93	463	155	48	447	149	48	644	
Palau	2496	7488	22,700	330	0.45	0.32	0.24	0.18	0.87	170	91	68	164	88	68	320	
Polynesia																	
Cook Islands	667	2000	16,900	118	0.37	0.60	0.15	0.04	0.55	79	32	8	76	31	8	115	
Pitcairn Islands	48	144	66	2182	0.83	0.08	0.06	0.08	0.98	1858	138	185	1793	134	185	2113	
Tokelau	204	612	1200	510	0.49	0.40	0.10	0.12	0.70	354	73	83	342	70	83	495	

* Based on harvests of 3 tonnes per km² of coral reef per year. DF = demersal fish; NSP = nearshore pelagic fish; SII = subtidal and intertidal invertebrates; note that some data are rounded to the nearest whole number.

Supplementary Table 12.12 Calculations of the fisheries production (fish and invertebrates) associated with coral reefs (Prodn.) projected to be available per person for Pacific Island countries and territories (PICTs) in Group 1 under the A2 emissions scenario in 2050.

PICT	Reef area (km ²)	Estimated annual Prodn. (tonnes)*	Population in 2050	Prodn. per person per year (kg)	% total Prodn.					Prodn. available per person (kg)						Total Prodn. per person (kg)
					DF	NSP	NSP non tuna	SII	DF + NSP non tuna + SII	Without climate change			With climate change			
					DF	NSP	NSP non tuna	SII	DF + NSP non tuna + SII	DF	NSP non tuna	SII	DF	NSP non tuna	SII	
Melanesia																
New Caledonia	35,925	107,775	343,175	314	0.55	0.12	0.09	0.27	0.91	190	30	94	152	26	89	268
Micronesia																
Marshall Islands	13,930	41,790	61,200	683	0.65	0.29	0.22	0.07	0.93	475	159	49	380	139	47	566
Palau	2496	7488	22,500	333	0.45	0.32	0.24	0.18	0.87	172	92	69	138	81	65	283
Polynesia																
Cook Islands	667	2000	16,900	118	0.37	0.60	0.15	0.04	0.55	79	32	8	63	31	7	101
Pitcairn Islands	48	144	66	2182	0.83	0.08	0.06	0.08	0.98	1858	138	185	1487	133	176	1795
Tokelau	204	612	1150	532	0.49	0.40	0.10	0.12	0.70	369	76	87	296	73	83	451

* Based on harvests of 3 tonnes per km² of coral reef per year. DF = demersal fish; NSP = nearshore pelagic fish; SII = subtidal and intertidal invertebrates; note that some data are rounded to the nearest whole number.

Supplementary Table 12.13 Calculations of the fisheries production (fish and invertebrates) associated with coral reefs (Prodn.) projected to be available per person for Pacific Island countries and territories (PICTs) in Group 1 under the B1 emissions scenario in 2100.

PICT	Reef area (km ²)	Estimated annual Prodn. (tonnes)*	Population in 2100	Prodn. per person per year (kg)	% total Prodn.					Prodn. available per person (kg)						Total Prodn. per person (kg)
					DF	NSP	NSP non tuna	SII	DF + NSP non tuna + SII	Without climate change			With climate change			
					DF	NSP	NSP non tuna	SII	DF + NSP non tuna + SII	DF	NSP non tuna	SII	DF	NSP non tuna	SII	
Melanesia																
New Caledonia	35,925	107,775	372,000	290	0.55	0.12	0.09	0.27	0.91	175	27	87	114	23	78	245
Micronesia																
Marshall Islands	13,930	41,790	61,200	683	0.65	0.29	0.22	0.07	0.93	475	159	49	380	131	47	558
Palau	2496	7488	22,500	333	0.45	0.32	0.24	0.18	0.87	172	92	69	138	76	65	279
Polynesia																
Cook Islands	667	2000	16,000	125	0.37	0.60	0.15	0.04	0.55	83	34	8	66	33	8	107
Pitcairn Islands	48	144	66	2182	0.83	0.08	0.06	0.08	0.98	1858	138	185	1487	133	176	1795
Tokelau	204	612	1150	532	0.49	0.40	0.10	0.12	0.70	369	76	87	296	73	83	451

* Based on harvests of 3 tonnes per km² of coral reef per year. DF = demersal fish; NSP = nearshore pelagic fish; SII = subtidal and intertidal invertebrates; note that some data are rounded to the nearest whole number.

Supplementary Table 12.14 Calculations of the fisheries production (fish and invertebrates) associated with coral reefs (Prodn.) projected to be available per person for Pacific Island countries and territories (PICTs) in Group 1 under the A2 emissions scenario in 2100.

PICT	Reef area (km ²)	Estimated annual Prodn. (tonnes)*	Population in 2100	Prodn. per person per year (kg)	% total Prodn.					Prodn. available per person (kg)						Total Prodn. per person (kg)	
					DF		NSP non tuna		DF + NSP non tuna + SII	Without climate change			With climate change				
					DF	NSP	NSP non tuna	SII	DF	NSP non tuna	SII	DF	NSP non tuna	SII			
Melanesia																	
New Caledonia	35,925	107,775	372,000	290	0.55	0.12	0.09	0.27	0.91	175.49	27.44	86.79	114	23	78	215	
Micronesia																	
Marshall Islands	13,930	41,790	61,200	683	0.65	0.29	0.22	0.07	0.93	474.61	158.94	49.30	308	131	44	484	
Palau	2496	7488	22,500	333	0.45	0.32	0.24	0.18	0.87	171.94	92.08	68.78	112	76	62	250	
Polynesia																	
Cook Islands	667	2000	16,000	125	0.37	0.60	0.15	0.04	0.55	82.95	34.09	7.95	54	31	7	92	
Pitcairn Islands	48	144	66	2182	0.83	0.08	0.06	0.08	0.98	1858.34	138.32	185.16	1208	127	167	1502	
Tokelau	204	612	1150	532	0.49	0.40	0.10	0.12	0.70	369.42	75.70	87.06	240	70	78	388	

* Based on harvests of 3 tonnes per km² of coral reef per year. DF = demersal fish; NSP = nearshore pelagic fish; SII = subtidal and intertidal invertebrates; note that some data are rounded to the nearest whole number.

Supplementary Table 12.15 Calculations of the fisheries production (fish and invertebrates) associated with coral reefs (Prodn.) projected to be available per person for Pacific Island countries and territories (PICTs) in Group 2 under the B1/A2 emissions scenarios in 2035.

PICT	Reef area (km ²)	Estimated annual Prodn. (tonnes)*	Population in 2035	Prodn. per person per year (kg)	% total Prodn.					Prodn. available per person (kg)						Total Prodn. per person (kg)
					DF	NSP	NSP non tuna	SII	DF + NSP non tuna + SII	Without climate change			With climate change			
					DF	NSP	NSP non tuna	SII	DF + NSP non tuna + SII	DF	NSP non tuna	SII	DF	NSP non tuna	SII	
Micronesia																
FSM	15,074	45,222	105,342	429	0.50	0.28	0.14	0.22	0.86	250	71	108	241	68	108	418
Kiribati	4320	12,960	144,600	90	0.73	0.21	0.05	0.06	0.84	77	5	7	74	5	7	86
Polynesia																
French Polynesia	15,126	45,378	330,800	137	0.53	0.38	0.09	0.08	0.70	104	18	15	99	18	15	131
Niue	56	168	1300	129	0.41	0.50	0.38	0.09	0.88	61	55	13	58	54	13	125
Tonga	5811	17,433	115,000	152	0.81	0.10	0.03	0.09	0.93	132	4	15	126	4	15	145
Tuvalu	3175	9525	12,800	744	0.69	0.27	0.13	0.04	0.87	592	115	37	562	112	37	711
Wallis and Futuna	932	2796	13,600	206	0.75	0.11	0.08	0.13	0.95	161	18	27	153	17	27	197

* Based on harvests of 3 tonnes per km² of coral reef per year. DF = demersal fish; NSP = nearshore pelagic fish; SII = subtidal and intertidal invertebrates; note that some data are rounded to the nearest whole number.

Supplementary Table 12.16 Calculations of the fisheries production (fish and invertebrates) associated with coral reefs (Prodn.) projected to be available per person for Pacific Island countries and territories (PICTs) in Group 2 under the A2 emissions scenario in 2050.

PICT	Reef area (km ²)	Estimated annual Prodn. (tonnes)*	Population in 2050	Prodn. per person per year (kg)	% total Prodn.					Prodn. available per person (kg)						Total Prodn. per person (kg)
					DF	NSP	NSP non tuna	SII	DF + NSP non tuna + SII	Without climate change			With climate change			
					DF	NSP	NSP non tuna	SII	DF + NSP non tuna + SII	DF	NSP non tuna	SII	DF	NSP non tuna	SII	
Micronesia																
FSM	15,074	45,222	109,265	414	0.50	0.28	0.14	0.22	0.86	241	68	104	193	60	99	352
Kiribati	4320	12,960	163,300	79	0.73	0.21	0.05	0.06	0.84	69	5	6	55	5	6	65
Polynesia																
French Polynesia	15,126	45,378	348,800	130	0.53	0.38	0.09	0.08	0.70	99	17	14	79	17	14	109
Niue	56	168	1300	129	0.41	0.50	0.38	0.09	0.88	61	55	13	49	53	12	114
Tonga	5811	17,433	123,000	142	0.81	0.10	0.03	0.09	0.93	124	4	14	99	4	14	116
Tuvalu	3175	9525	13,900	685	0.69	0.27	0.13	0.04	0.87	545	106	34	436	102	32	570
Wallis and Futuna	932	2796	13,600	206	0.75	0.11	0.08	0.13	0.95	161	18	27	129	17	26	171

* Based on harvests of 3 tonnes per km² of coral reef per year. DF = demersal fish; NSP = nearshore pelagic fish; SII = subtidal and intertidal invertebrates; note that some data are rounded to the nearest whole number.

Supplementary Table 12.17 Calculations of the fisheries production (fish and invertebrates) associated with coral reefs (Prodn.) projected to be available per person for Pacific Island countries and territories (PICTs) in Group 2 under the B1 emissions scenario in 2100.

PICT	Reef area (km ²)	Estimated annual Prodn. (tonnes)*	Population in 2100	Prodn. per person per year (kg)	% total Prodn.					Prodn. available per person (kg)						Total Prodn. per person (kg)
					DF	NSP	NSP non tuna	SII	DF + NSP non tuna + SII	Without climate change			With climate change			
					DF	NSP	NSP non tuna	SII	DF + NSP non tuna + SII	DF	NSP non tuna	SII	DF	NSP non tuna	SII	
Micronesia																
FSM	15,074	45,222	109,265	414	0.50	0.28	0.14	0.22	0.86	241	68	104	193	60	99	352
Kiribati	4320	12,960	211,291	61	0.73	0.21	0.05	0.06	0.84	53	4	5	42	4	4	50
Polynesia																
French Polynesia	15,126	45,378	378,870	120	0.53	0.38	0.09	0.08	0.70	91	16	13	73	15	12	100
Niue	56	168	1283	129	0.41	0.50	0.38	0.09	0.88	61	55	13	49	53	12	114
Tonga	5811	17,433	146,901	119	0.81	0.10	0.03	0.09	0.93	104	3	12	83	3	11	97
Tuvalu	3175	9525	18,521	514	0.69	0.27	0.13	0.04	0.87	409	80	26	327	76	24	428
Wallis and Futuna	932	2796	13,570	206	0.75	0.11	0.08	0.13	0.95	161	18	27	129	17	26	171

* Based on harvests of 3 tonnes per km² of coral reef per year. DF = demersal fish; NSP = nearshore pelagic fish; SII = subtidal and intertidal invertebrates; note that some data are rounded to the nearest whole number.

Supplementary Table 12.18 Calculations of the fisheries production (fish and invertebrates) associated with coral reefs (Prodn.) projected to be available per person for Pacific Island countries and territories (PICTs) in Group 2 under the A2 emissions scenario in 2100.

PICT	Reef area (km ²)	Estimated annual Prodn. (tonnes)*	Population in 2100	Prodn. per person per year (kg)	% total Prodn.				Prodn. available per person (kg)						Total Prodn. per person (kg)	
					DF	NSP	NSP non tuna	SII	Without climate change			With climate change				
									DF	NSP non tuna	SII	DF	NSP non tuna	SII		
Micronesia																
FSM	15,074	45,222	109,265	414	0.50	0.28	0.14	0.22	0.86	241	68	104	157	56	94	307
Kiribati	4320	12,960	163,300	79	0.73	0.21	0.05	0.06	0.84	69	5	6	34	3	4	42
Polynesia																
French Polynesia	15,126	45,378	348,800	130	0.53	0.38	0.09	0.08	0.70	99	17	14	59	15	12	85
Niue	56	168	1300	129	0.41	0.50	0.38	0.09	0.88	61	55	13	40	51	12	104
Tonga	5811	17,433	123,000	142	0.81	0.10	0.03	0.09	0.93	124	4	14	67	3	11	81
Tuvalu	3175	9525	13,900	685	0.69	0.27	0.13	0.04	0.87	545	106	34	266	73	23	362
Wallis and Futuna	932	2796	13,600	206	0.75	0.11	0.08	0.13	0.95	161	18	27	105	16	24	145

* Based on harvests of 3 tonnes per km² of coral reef per year. DF = demersal fish; NSP = nearshore pelagic fish; SII = subtidal and intertidal invertebrates; note that some data are rounded to the nearest whole number.

Supplementary Table 12.19 Calculations of projected fisheries production (fish and invertebrates) associated with coral reefs (Prodn.) and freshwater habitats (FW Prodn.) per person for Pacific Island countries and territories (PICTs) in Group 3 under the B1/A2 emissions scenarios in 2035.

PICT	Reef area (km ²)	Estimated annual Prodn. (tonnes)*	Estimated annual FW Prodn. (tonnes)	Population in 2035	Prodn. per person per year (kg)	% total Prodn.					Prodn. and FW Prodn. available per person (kg)									
						DF	NSP	NSP non tuna	SII	DF + NSP non tuna + SII	Without climate change				With climate change					
											DF	NSP non tuna	SII	FW	DF	NSP non tuna	SII	FW	Total	
Melanesia																				
Fiji	10,000	30,000	4146	977,600	31	64.9	19.6	14.7	13.2	92.8	21	5	4	4	21	5	4	4	34	
PNG	22,000	66,000	17,500	10,822,300	6	40.7	38.5	28.9	17.1	86.7	3	2	1	2	3	2	1	2	8	
Solomon Islands	8535	25,605	2000	969,900	26	48.9	31.5	23.6	14.4	86.9	15	7	4	2	14	7	4	2	28	
Vanuatu	1244	3732	80	400,033	9	40.1	39.1	29.3	18.7	88.1	4	3	2	0	4	3	2	0	9	
Micronesia																				
Guam	238	714	3	250,400	3	28.9	67.5	33.8	3.5	66.2	1	1	0	0	1	1	0	0	3	
Nauru	7	21	0	14,400	1	47.7	47.7	11.9	4.6	64.2	1	0	0	0	1	0	0	0	1	
CNMI	250	750	0	76,200	10	45.5	50.1	37.6	4.4	87.5	5	4	0	0	5	4	0	0	10	
Polynesia																				
American Samoa	368	1104	1	87,300	13	59.4	30	22.7	10	92.4	8	3	1	0	8	3	1	0	12	
Samoa**	2000	6000	10	202,000	30	51.2	29.6	14.8	19.2	85.2	18	5	7	0	17	5	7	0	29	

* Based on harvests of 3 tonnes per km² of coral reef per year; ** based on area to a depth of ~ 100 m. DF = demersal fish; NSP = nearshore pelagic fish; SII = subtidal and intertidal invertebrates; FW = freshwater fish; note that some data are rounded to the nearest whole number.

Supplementary Table 12.20 Calculations of projected fisheries production (fish and invertebrates) associated with coral reefs (Prodn.) and freshwater habitats (FW Prodn.) per person for Pacific Island countries and territories (PICTs) in Group 3 under the A2 emissions scenario in 2050.

PICT	Reef area (km ²)	Estimated annual Prodn. (tonnes)*	Estimated annual FW Prodn. (tonnes)	Population in 2050	Prodn. per person per year (kg)	% total Prodn.				Prodn. and FW Prodn. available per person (kg)									
						DF	NSP	NSP non tuna	SII	Without climate change				With climate change					
										DF	NSP non tuna	SII	FW	DF	NSP non tuna	SII	FW	Total	
Melanesia																			
Fiji	10,000	30,000	4146	1,060,700	28	64.9	19.6	14.7	13.2	92.8	20	4	4	4	16	4	4	4	28
PNG	22,000	66,000	17,500	13,271,100	5	40.7	38.5	28.9	17.1	86.7	2	2	1	1	2	1	1	1	6
Solomon Islands	8535	25,605	2000	1,245,800	22	48.9	31.5	23.6	14.4	86.9	12	6	4	2	10	5	3	2	20
Vanuatu	1244	3732	80	483,048	8	40.1	39.1	29.3	18.7	88.1	4	3	2	0	3	2	2	0	8
Micronesia																			
Guam	238	714	3	267,800	3	28.9	67.5	33.8	3.5	66.2	1	1	0	0	1	1	0	0	2
Nauru	7	21	0	16,300	1	47.7	47.7	11.9	4.6	64.2	1	0	0	0	1	0	0	0	1
CNMI	250	750	0	80,200	9	45.5	50.1	37.6	4.4	87.5	5	4	0	0	4	4	0	0	8
Polynesia																			
American Samoa	368	1104	1	98,300	11	59.4	30	22.7	10	92.4	7	3	1	0	6	3	1	0	10
Samoa**	2000	6000	10	209,700	29	51.2	29.6	14.8	19.2	85.2	17	5	6	0	14	5	6	0	25

* Based on harvests of 3 tonnes per km² of coral reef per year; ** based on area to a depth of ~ 100 m. DF = demersal fish; NSP = nearshore pelagic fish; SII = subtidal and intertidal invertebrates; FW = freshwater fish; note that some data are rounded to the nearest whole number.

Supplementary Table 12.21 Calculations of projected fisheries production (fish and invertebrates) associated with coral reefs (Prodn.) and freshwater habitats (FW Prodn.) per person for Pacific Island countries and territories (PICTs) in Group 3 under the B1 emissions scenario in 2100.

PICT	Reef area (km ²)	Estimated annual Prodn. (tonnes)*	Estimated annual FW Prodn. (tonnes)	Population in 2100	Prodn. per person per year (kg)	% total Prodn.					Prodn. and FW Prodn. available per person (kg)								
						DF	NSP	NSP non tuna	SII	DF + NSP non tuna + SII	Without climate change				With climate change				
											DF	NSP non tuna	SII	FW	DF	NSP non tuna	SII	FW	Total
Melanesia																			
Fiji	10,000	30,000	4146	1,331,600	23	64.9	19.6	14.7	13.2	92.8	16	4	3	3	10	3	3	3	19
PNG	22,000	66,000	17,500	21,125,000	3	40.7	38.5	28.9	17.1	86.7	1	1	1	1	1	1	1	1	3
Solomon Islands	8535	25,605	2000	1,968,800	13	48.9	31.5	23.6	14.4	86.9	7	4	2	1	5	3	2	1	11
Vanuatu	1244	3732	80	695,000	5	40.1	39.1	29.3	18.7	88.1	2	2	1	0	2	2	1	0	4
Micronesia																			
Guam	238	714	3	295,800	2	28.9	67.5	33.8	3.5	66.2	1	1	0	0	1	1	0	0	2
Nauru	7	21	0	20,800	1	47.7	47.7	11.9	4.6	64.2	1	0	0	0	1	0	0	0	1
CNMI	250	750	0	87,000	9	45.5	50.1	37.6	4.4	87.5	4	4	0	0	3	3	0	0	6
Polynesia																			
American Samoa	368	1104	1	135,400	8	59.4	30	22.7	10	92.4	5	2	1	0	3	2	1	0	6
Samoa**	2000	6000	10	240,100	25	51.2	29.6	14.8	19.2	85.2	15	4	6	0	10	4	5	0	19

* Based on harvests of 3 tonnes per km² of coral reef per year; ** based on area to a depth of ~ 100 m. DF = demersal fish; NSP = nearshore pelagic fish; SII = subtidal and intertidal invertebrates; FW = freshwater fish; note that some data are rounded to the nearest whole number.

Supplementary Table 12.22 Calculations of projected fisheries production (fish and invertebrates) associated with coral reefs (Prodn.) and freshwater habitats (FW Prodn.) per person for Pacific Island countries and territories (PICTs) in Group 3 under the A2 emissions scenario in 2100.

PICT	Reef area (km ²)	Estimated annual Prodn. (tonnes)*	Estimated annual FW Prodn. (tonnes)	Population in 2100	Prodn. per person per year (kg)	% total Prodn.					Prodn. and FW Prodn. available per person (kg)									
						DF	NSP	NSP non tuna	SII	DF + NSP non tuna + SII	Without climate change				With climate change					
											DF	NSP non tuna	SII	FW	DF	NSP non tuna	SII	FW	Total	
Melanesia																				
Fiji	10,000	30,000	4146	1,331,600	23	64.9	19.6	14.7	13.2	92.8	16	4	3	3	10	3	3	3	19	
PNG	22,000	66,000	17,500	21,125,000	3	40.7	38.5	28.9	17.1	86.7	1	1	1	1	1	1	1	1	3	
Solomon Islands	8535	25,605	2000	1,968,800	13	48.9	31.5	23.6	14.4	86.9	7	4	2	1	5	3	2	1	11	
Vanuatu	1244	3732	80	695,000	5	40.1	39.1	29.3	18.7	88.1	2	1	1	0	1	1	1	0	4	
Micronesia																				
Guam	238	714	3	295,800	2	28.9	67.5	33.8	3.5	66.2	1	1	0	0	1	1	0	0	2	
Nauru	7	21	0	20,800	1	47.7	47.7	11.9	4.6	64.2	1	0	0	0	0	0	0	0	1	
CNMI	250	750	0	87,000	9	45.5	50.1	37.6	4.4	87.5	4	4	0	0	3	3	0	0	6	
Polynesia																				
American Samoa	368	1104	1	135,400	8	59.4	30	22.7	10	92.4	5	2	1	0	3	2	1	0	6	
Samoa**	2000	6000	10	240,100	25	51.2	29.6	14.8	19.2	85.2	15	4	6	0	10	4	5	0	19	

* Based on harvests of 3 tonnes per km² of coral reef per year; ** based on area to a depth of ~ 100 m. DF = demersal fish; NSP = nearshore pelagic fish; SII = subtidal and intertidal invertebrates; FW = freshwater fish; note that some data are rounded to the nearest whole number.

Supplementary Table 12.23 Vulnerability indices for Pacific Island countries and territories (PICTs) in Group 3 to shortages of fish for food security under the B1/A2 emissions scenarios in 2035. See Appendix 12.1 for the calculation of adaptive capacity indices.

PICT	Exposure (% change in catch)		Sensitivity (fish consumption per person)	Potential impact		Adaptive capacity	1 - AC	Vulnerability index	
	Reef fish available per person (kg) each year	E = Shortfall < 35 kg required		PI = E x S	PI index				
Melanesia									
Fiji	34	1	37	*	37	0.00	0.35	0.65	0.00
PNG	8	27	35		945	0.54	0.24	0.76	0.41
Solomon Islands	28	7	35		245	0.12	0.18	0.82	0.10
Vanuatu	9	26	35		924	0.53	0.37	0.63	0.33
Micronesia									
Guam	3	32	35		1127	0.65	0.82	0.18	0.12
Nauru	1	34	51	*	1713	1.00	0.37	0.63	0.63
CNMI	10	25	50	**	1271	0.74	0.62	0.38	0.28
Polynesia									
American Samoa	12	23	63	**	1433	0.83	0.37	0.63	0.52
Samoa	29	6	73	*	440	0.24	0.43	0.57	0.14

* Average of information in Bell et al. (2009)³ and Gillett and Lightfoot (2001)⁶⁰; ** estimates based on information in Gillett (2009)⁴. E = exposure; PI = potential impact; S = sensitivity; AC = adaptive capacity; fish is used in the broad sense to include fish and invertebrates.

Supplementary Table 12.24 Vulnerability indices for Pacific Island countries and territories (PICTs) in Group 3 to shortages of fish for food security under the A2 emissions scenario in 2050. See Appendix 12.1 for the calculation of adaptive capacity indices.

PICT	Exposure (% change in catch)		Sensitivity (fish consumption per person)	Potential impact		Adaptive capacity	1 - AC	Vulnerability index	
	Reef fish available per person (kg) each year	E = Shortfall < 35 kg required		PI = E x S	PI index				
Melanesia									
Fiji	28	7	37	*	259	0.00	0.35	0.65	0.00
PNG	6	29	35		1015	0.52	0.24	0.76	0.40
Solomon Islands	19	16	35		560	0.21	0.18	0.82	0.17
Vanuatu	6	29	35		1015	0.52	0.37	0.63	0.33
Micronesia									
Guam	2	33	35		1155	0.62	0.82	0.18	0.11
Nauru	1	34	51	*	1713	1.00	0.37	0.63	0.63
CNMI	8	27	50	**	1350	0.75	0.62	0.38	0.29
Polynesia									
American Samoa	10	25	63	**	1575	0.91	0.37	0.63	0.57
Samoa	25	10	73	*	730	0.32	0.43	0.57	0.18

* Average of information in Bell et al. (2009)³ and Gillett and Lightfoot (2001)⁶⁰; ** estimates based on information in Gillett (2009)⁴. E = exposure; PI = potential impact; S = sensitivity; AC = adaptive capacity; fish is used in the broad sense to include fish and invertebrates.

Supplementary Table 12.25 Vulnerability indices for Pacific Island countries and territories (PICTs) in Group 3 to shortages of fish for food security under the B1 emissions scenario in 2100. See Appendix 12.1 for the calculation of adaptive capacity indices.

PICT	Exposure (% change in catch)		Sensitivity (fish consumption per person)	Potential impact		Adaptive capacity	1 - AC	Vulnerability index	
	Reef fish available per person (kg) each year	E = Shortfall < 35 kg required		PI = E x S	PI index				
Melanesia									
Fiji	22	13	37	*	481	0.00	0.35	0.65	0.00
PNG	4	31	35		1085	0.49	0.24	0.76	0.37
Solomon Islands	12	23	35		805	0.26	0.18	0.82	0.22
Vanuatu	5	30	35		1050	0.46	0.37	0.63	0.29
Micronesia									
Guam	2	33	35		1155	0.55	0.82	0.18	0.10
Nauru	1	34	51	*	1713	1.00	0.37	0.63	0.63
CNMI	9	26	50	**	1300	0.66	0.62	0.38	0.25
Polynesia									
American Samoa	8	27	63	**	1701	0.99	0.37	0.63	0.62
Samoa	22	13	73	*	949	0.38	0.43	0.57	0.22

* Average of information in Bell et al. (2009)³ and Gillett and Lightfoot (2001)⁶⁰; ** estimates based on information in Gillett (2009)⁴. E = exposure; PI = potential impact; S = sensitivity; AC = adaptive capacity; fish is used in the broad sense to include fish and invertebrates.

Supplementary Table 12.26 Vulnerability indices for Pacific Island countries and territories (PICTs) in Group 3 to shortages of fish for food security under the A2 emissions scenario in 2100. See Appendix 12.1 for the calculation of adaptive capacity indices.

PICT	Exposure (% change in catch)		Sensitivity (fish consumption per person)	Potential impact		Adaptive capacity	1 - AC	Vulnerability index	
	Reef fish available per person (kg) each year	E = Shortfall < 35 kg required		PI = E x S	PI index				
Melanesia									
Fiji	20	15	37	*	555	0.00	0.35	0.65	0.00
PNG	3	32	35		1120	0.44	0.24	0.76	0.34
Solomon Islands	11	24	35		840	0.22	0.18	0.82	0.18
Vanuatu	4	31	35		1085	0.42	0.37	0.63	0.26
Micronesia									
Guam	2	33	35		1155	0.47	0.82	0.18	0.08
Nauru	1	34	51	*	1713	0.91	0.37	0.63	0.57
CNMI	6	29	50	**	1450	0.70	0.62	0.38	0.27
Polynesia									
American Samoa	6	29	63	**	1827	1.00	0.37	0.63	0.63
Samoa	19	16	73	*	1200	0.51	0.43	0.57	0.29

* Average of information in Bell et al. (2009)³ and Gillett and Lightfoot (2001)⁶⁰; ** estimates based on information in Gillett (2009)⁴. E = exposure; PI = potential impact; S = sensitivity; AC = adaptive capacity; fish is used in the broad sense to include fish and invertebrates.

Supplementary Table 12.6 Calculations for estimating the relative vulnerability of economic development and government revenue in Pacific Island countries and territories (PICTs) to projected changes in the catches of skipjack tuna under the B1 emissions scenarios in 2100.

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Supplementary Table 12.7 Calculations for estimating the relative vulnerability of economic development and government revenue in Pacific Island countries and territories (PICTs) to projected changes in the catches of skipjack tuna under the A2 emissions scenarios in 2100.

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Supplementary Table 12.8 Calculations for estimating the relative vulnerability of economic development and government revenue in Pacific Island countries and territories (PICTs) to projected changes in the catches of bigeye tuna under the B1 and A2 emissions scenarios in 2035.

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