

Preliminary review of public expenditure of the Fisheries Agencies of Pacific Island Countries and Territories: Policy, operational budget and staffing support for coastal fisheries

Hugh Govan, May 2015. Final report to the SPC Division of Fisheries, Aquaculture and Marine Ecosystems

DISCLAIMER – data provided by government officials have been processed by the consultant in attempts to allow standard comparisons, similarly other data sources are acknowledged but have been subject to processing. Results do not represent official government or SPC figures and are the consultant's sole responsibility

PREFACE

In 2013 country profiles were produced for the Melanesian Spearhead Group (MSG) countries (PNG, Solomon Islands, Vanuatu, Fiji and New Caledonia) to examine the amount of national fisheries budgets and staffing that is devoted to coastal fisheries management (Govan 2013). This was used as background information for the development of a Roadmap for inshore fisheries management and sustainable development subsequently endorsed at the 20th MSG Leaders' Summit in Honiara, June 2015.

The MSG experience highlighted the need for greatly increased efforts in addressing inshore fisheries resources sustainability because inshore activities directly impact the resources which support people's livelihood and food security in most small island communities. Improving management of small scale fisheries is key, based on the co-management approaches for promoting and preserving subsistence livelihoods of the majority of our region's people. The important role of community-based management has been established and it is timely to explore and clarify the role of government agencies in these co-management approaches.

The Secretariat of the Pacific Community (SPC) was funded by the Australian Government through DFAT to convene a regional workshop focusing on community-based fisheries and natural resource co-management, bringing together key stakeholders to discuss issues and look at lessons learned, and take these forward in regional and sub-regional strategies. The workshop was held from 3- 6 March 2015 and produced a new regional strategy for coastal fisheries management: The Noumea agreement: "A new song for coastal fisheries": Pathways to change 2015.

The present report aimed to produce outputs to inform this process, specifically:

1. Identify all coastal fisheries policies, strategies and management plans, and where possible, any legislation covering the marine environment and/or fisheries;
2. Review the staffing and budget data for fisheries agencies and the value or percentage devoted to coastal fisheries and particularly management;
3. Where possible, provide an estimate of resources invested in fisheries management compared to coastal areas and Exclusive Economic Zones (EEZ) and/or value of fisheries being managed.

EXECUTIVE SUMMARY

The sustainability of inshore fisheries resources are of vital concern to the 22 Pacific Island Countries and Territories (PICTs) as they are fundamental to people's livelihood and food security in most small island communities. Inshore resources are under increasing threat from population growth and increasing commercialization and improving management of small scale fisheries based on co-management approaches is recognized as a regional policy priority (e.g. FFA/SPC A Regional Roadmap for Sustainable Pacific Fisheries, Noumea Coastal Fisheries Strategy: Pathways to Change 2015, MSG Roadmap for Inshore Fisheries Management and Sustainable Development 2015-2024). The important role of community-based management has been established and it is timely to explore and clarify the role of government agencies in these co-management approaches. The Secretariat of the Pacific Community (SPC) was funded by the Australian Government through DFAT commissioned the present study to inform the elaboration of the Noumea Coastal Fisheries Strategy and specifically to review national coastal fisheries policies, staffing and budgets in relation to the potential task of sustainably managing coastal fisheries. The findings are summarised below:

In the Pacific Islands as a whole there are:

- EEZs covering **29,000,000** Km² and **22** Fisheries Agencies with **1,277** staff and **US\$72,000,000** budget for operations
- Inshore Fishing Areas covering **350,000** Km² with **614** staff dedicated at least 25% and **US\$11,900,000** budget for operations
- The value of fisheries production (2007) was over **US\$2,000,000,000**

In the Pacific Island Countries excluding dependent territories and PNG there are:

- EEZs covering **17,500,000** Km² and **13** Fisheries Agencies with **836** staff and **US\$15,600,000** budget for operations
- Inshore Fishing Areas covering **141,000** Km² with **399** staff dedicated at least 25% and **US\$3,500,000** budget for operations
- The value of fisheries production (2007) was over **US\$1,100,000,000**

Synthesis of findings and recommendations:

Coastal and inshore fisheries policies do not adequately support sustainable management

- The majority of PICTs do not have Coastal Fisheries Policies though 3 PICTs do, 4 are in the process of drafting them and 2 may be adequately covered in other policy.
- The lack of coastal fisheries policies is compounded by their low likelihood of resulting in improved fisheries management based on current experiences.



Improving coastal fisheries management in the short term should be better addressed through improved drafting of workplans, staff job descriptions and allocation of increased and decentralised budgets.

Governments are not allocating adequate operational resources for coastal fisheries management

- Most fisheries agencies usually do not clearly distinguish budget lines or staffing between coastal fisheries management and other functions. Aid projects and funding for fisheries development do not make up for the lack of investment in routine resource management and may actually have negative impacts.
- This is particularly of concern given the low levels of budgetary and staff support relative to the massive coastal and oceanic resources for which the PICTs are responsible and upon which they are highly dependent.



National Fisheries Agencies should be encouraged to specify and report budgetary and manpower allocations for the sustainable coastal fisheries management.



National coastal fisheries management allocations can be used as an indicator against aspirational targets such as investment per value of production or area managed.

Low resourcing of sustainable management is particularly alarming in the lesser developed countries with projected near-term deficits in coastal fish production

- More than 84% of the region's population reside in countries projected to experience a deficit in the supply of coastal fish for food security, a further 11% in countries projected to experience a deficit.
- The lack of sustainable management investment gives rise to grave concerns when the impact of projected deficits in fish supply on predominantly fisheries dependent subsistence populations in lesser developed countries.



Adequate support for sustainable coastal fisheries management must be ensured in lesser developed countries and requires particularly urgent attention from donors and political leaders

Despite encouraging progress in community-based fisheries management there is a long way to go

- More than 900 communities are documented as implementing Community-Based Fisheries Management (CBFM) though over half of those are Fiji and Samoa alone.
- It is unclear to what extent CBFM occurs in villages that have not been surveyed by government or NGOs but more than 90% of the over 11,422 coastal villages do not appear to be receiving support to implement CBFM.
- Insufficient information is available to determine the effectiveness of most reported sites or the extent to which CBFM occurs autonomously in the remaining villages.



Governments should ascertain the extent to which CBFM effectively occurs and determine the most cost-effective strategies to support, extend and sustain these practices.

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Coastal fisheries: vital to Pacific Islands' livelihoods and under threat

Coastal fisheries play a vital role in meeting subsistence and economic needs for many communities in the region. Though coastal commercial and subsistence fisheries may account for less than 12% of overall fisheries landings they comprise an estimated 49% of the fisheries contribution to gross domestic product and most of the fish contribution to national nutrition (Figure 1 and Gillett 2009).

In many countries coastal resources are either fully- or over-exploited and many of the commercially important export fisheries have gone through boom-bust cycles or collapsed. In contrast to oceanic fisheries, despite continued development efforts, coastal fisheries production overall has stagnated (Figure 2) which is a potential indication of a fisheries at its biological limits, even more concerning as coastal populations continue to increase. It is apparent that national and regional tuna fisheries management frameworks have been improving but there seems to have been limited improvement of management within the coastal fisheries sector (Gillett and Cartwright 2010).

General indicators of governance developed by the World Bank suggest weak government capacity for management and enforcement may be related to weak regulatory quality (Figure 3). Low government effectiveness is another notable feature highlighted by these indicators and one factor demonstrated by previous studies in Melanesia may be that government departments are usually under-resourced in terms of both finances and staff, particularly in the rural areas where the fisheries actually occur (cf. Govan 2013).

The present study represents the first regional attempt to ascertain public investment in terms of budget and staffing allocated to national Fisheries Agencies and what specific support is available for coastal fisheries management. The current status of policy and legislation relevant to coastal fisheries is also examined.

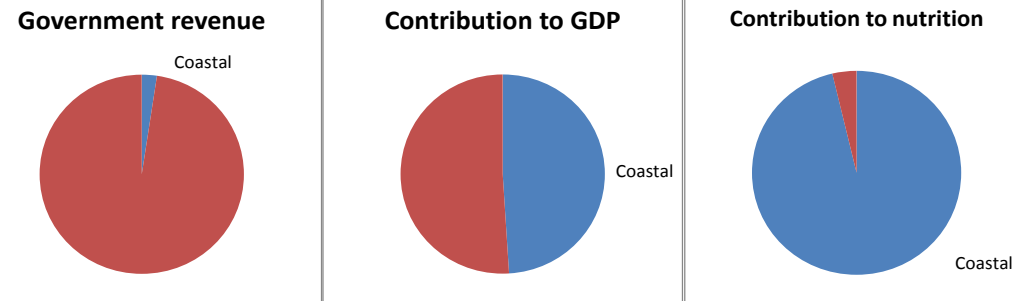


Figure 1: Relative importance of off-shore and coastal fisheries in terms of types of benefits in the Pacific Islands Region (data from Gillett 2009).

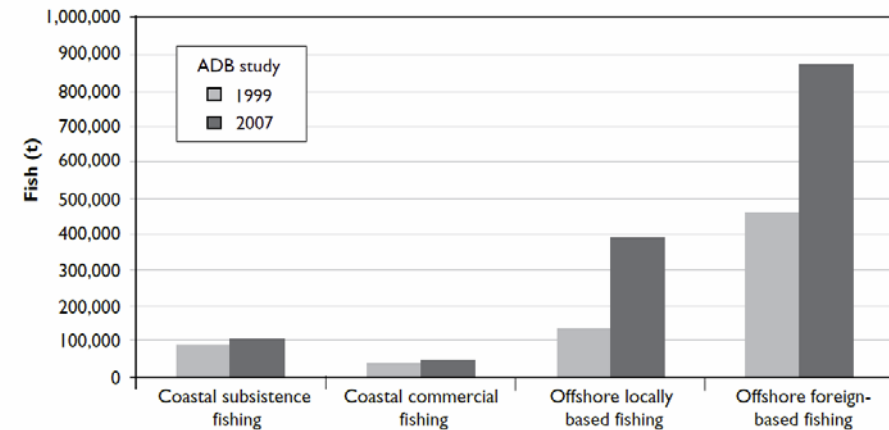
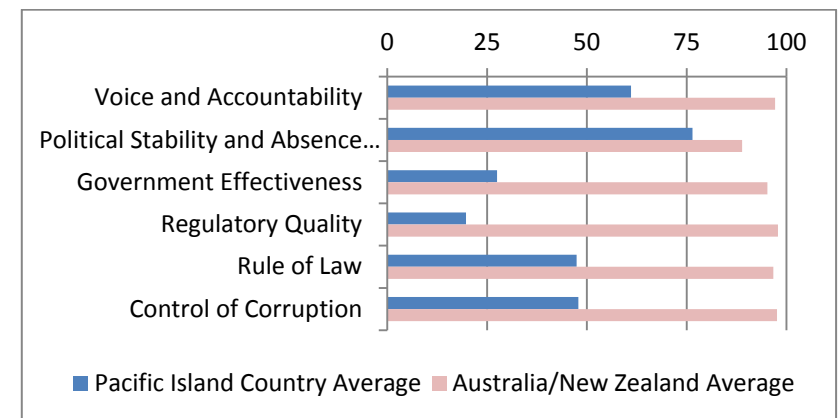


Figure 2: Fishery production trends in the Pacific Islands Region (Gillett and Cartwright 2010).

Figure 3: Indicators of governance for Pacific Island Countries compared to their nearest development partners Australia and New Zealand. Note the particularly low scores for government effectiveness and regulatory quality (data from www.govindicators.org).



Study methods and data constraints

Fisheries agency staff were contacted using the SPC Address Book (2014) details and recent policy developments, budget and staffing details were requested. Gillett (2010) and Govan (2013) were used as a starting point for legislation and policy. In all cases several follow-up communications were required and the data provided varied greatly; ranging from internal reports and operating budgets to publicly available national budgets or accounts. Data were cross-checked and supplemented from country questionnaires circulated by SPC in March 2015. Tokelau was the only PICT for which no budgetary information could be obtained.

Details concerning the sources of information are provided in Annex 1; major characteristics are:

- Budgets were provided for a year between 2012 and 2015, most frequently 2013/14.
- For most PICTs reliable estimates of development/capital investments were not available and so were generally excluded except for two countries where this proved impossible (PNG and New Caledonia).
- It was not possible to reliably disaggregate budget data for coastal fisheries in 6 PICTS.
- Coastal fisheries budget calculations exclude aquaculture
- Coastal budgets include the relevant proportion of overall administrative costs.
- Staff numbers were provided for all PICTs, “coastal” fisheries staff numbers were considered to be those employed on coastal issues for 25% time or above.
- Staff numbers did not include vacant posts, observers or temporary project personnel.
- No country was able to disaggregate data for coastal fisheries management and these were reported jointly with coastal fisheries development figures. Some territories did disaggregate these data.

Do PICTs have policy and legislation relevant to coastal fisheries?

The information provided by PICTs’ Fisheries Agencies (Table 1) shows relatively recent primary fisheries legislation with the notable exceptions of Fiji, Palau and Niue which are currently drafting updates. Larger or more extended countries tend to have subnational legislation defining the roles of decentralized, provincial or island authorities in coastal fisheries management.

National coastal fisheries policies

Only three PICTs have specific coastal fisheries policies, two of these are being renewed for a second period. Two PICTs have overarching fisheries policies that cover coastal fisheries and four others are in the process of drafting relevant policies. However, the content and quality of these policies is extremely varied and in general they do not allocate specific resources, staffing or activities. The policies also include fisheries development activities and do not clarify the relationship between sustainable management and fisheries development. Some PICTs, for example the US and French territories may have adequate guidance in coastal fisheries management from the primary legislation. Where comparisons can be made between the yearly corporate workplan and the coastal fisheries policy there seems to be generally little correlation.

Table 1: Coastal fisheries legislation, policy and Community-based Fisheries Management (CBFM) in the Pacific Islands. Fisheries Agencies provided estimates of communities practicing CBFM but total number of coastal communities was derived from other sources and the definition of “communities” in each context may be different.

	Primary fisheries legislation	Subnational / provincial fisheries legislation	Coastal fisheries policy	Villages or communities	Coastal villages or communities	Communities with CBFM	% communities with CBFM	Notes
MELANESIA								
Fiji Islands	1991	no	none	1570	850	448	53%	Villages
New Caledonia	1999/2006-9	yes	none	ND	ND	1	ND	ND
Papua New Guinea	2012	yes	none	25000	4000	86	2%	Communities
Solomon Islands	2015	yes	yes, in review	6638	4038	184	5%	Communities
Vanuatu	2014	no	none	2149	1400	13	1%	
MICRONESIA								
FSM	2002	yes	none	75	75	10	13%	Municipalities
Guam	2004, 2006, 2012	no	yes, in other policy	21	13	0	0%	Villages
Kiribati	2010	yes	yes, in other policy	184	184	5	3%	Villages
Marshall Islands	2012	no	none	103	103	13	13%	Communities
N. Mariana Islands	NA	no	none	12	12	0	0%	Towns and villages
Nauru	1997	no	none	14	14	0	0%	Districts
Palau	1994	yes	none	16	16	5	31%	States
POLYNESIA								
American Samoa	NA	yes	none	74	74	13	18%	Villages
Samoa	1988, 2002	yes	yes	330	330	102	31%	Villages
Cook Islands	2005	yes	yes, in review	37	37	6	16%	Districts
Niue	1995	no	in draft	14	14	1	7%	Villages
Pitcairn Islands	2001	no	in draft	1	1	0	0%	ND
French Polynesia	2012	yes	none	48	48	27	56%	Communes
Tokelau	2011	no	in draft	3	3	3	100%	Villages
Tonga	2002	no	none	167	167	10	6%	Villages
Tuvalu	2012	yes	none	9	9	9	100%	Island Councils
Wallis and Futuna	2005	no	in draft	35	34	0	0%	Villages
TOTAL (22 PICTS)		11	9	36,500	11,422	936	8.2%	

Local and Community-based Fisheries Management

Assessing current CBFM efforts in the region raised several issues of relevance to future coastal fisheries management activities:

- Regular inventories of national CBFM activities are rare and those that exist do not regularly determine the status and effectiveness of all sites.
- Most Agencies do not clearly define criteria for determining sites which qualify as CBFM.
- Most Agencies do not directly manage lists of coastal communities or even those carrying out CBFM. This hinders assessment of progress and coverage at country level.

With the caveats above, there are an estimated 936 sites or communities potentially implementing CBFM in the Pacific Islands region – around 8% of coastal communities. Fiji and Samoa account for more than half these communities and over half the countries record CBFM in less than 7% of their coastal communities. Effectiveness or indeed persistence of these sites has not been recently reviewed in Fiji, PNG or Solomon Islands and it is possible that these figures are an overestimate.

What are the fisheries agency operational budgets and staffing?

Fisheries agencies' operational budgets¹ give an indication of ongoing government commitment to the sector. Time series data were not generally available but no major trends were detected. Development and capital budgets were not always available and, when they were, variously included or omitted NGO or government aid projects, one-off government investments and showed much variation over time and in between countries. The development and capital budgets were omitted from the datasets except in PNG and New Caledonia where this was not possible.

Fisheries agency operational budgets

The fisheries agency operational budgets totalled some US\$72 million per year based on the 2012-14 data (Table 2). Just over half of this is accounted for by PNG, a further quarter by the remaining countries and a quarter by territories (Figure 4). Melanesia accounts for over 70% of the total but nearer to 40% excluding PNG (PNG data include some elements of development and capital).

Coastal fisheries budgets

The proportion of fisheries agency budgets attributed to coastal fisheries (note totals for countries with disaggregated coastal fisheries budgets in Table 2) is around 15% or US\$12 million but is generally higher in Territories and Fiji (40-60%). Aquaculture budgets are not considered as part of coastal fisheries budgets for this analysis but proportional administrative costs are.

Discerning the proportion of coastal fisheries budgets allocated to management or research was not consistently possible within the confines of this 22 PICT survey which highlights the general lack of discrete fisheries management budgets in most cases. Indicative figures from 6 countries from this and other surveys and suggest some 10-40% of coastal fisheries budgets may be allocated to management (Table 3).

Aquaculture budgets were available for 5 PICTs and operational budgets ranged from 5-16% of total (Solomon Islands 5%, Tonga 10%, Fiji 10%, Vanuatu 14%, French Polynesia 16%) however it is likely that aquaculture accounts for a considerably proportion of development or project budgets (e.g. Fiji 44%).

¹ Including administration and overheads

Table 2: Operational budgets and staff of Fisheries Agencies in the Pacific Island Countries and Territories. Budget allocated to Coastal Fisheries is shown where provided. Staff deemed to spend at least 25% time on coastal fisheries issues are counted as “coastal”. Coastal fisheries includes development and management activities but not aquaculture.

	Total budget	Coastal budget	Coastal budget/total budget (%)	Total staff	Coastal staff	Coastal staff / total staff
MELANESIA	52,334,801	8,235,264	16%	605	294	49%
Fiji Islands			60%	147	73	50%
New Caledonia *			27%	35	24	69%
Papua New Guinea *			10%	290	129	44%
Solomon Islands			21%	79	47	59%
Vanuatu			29%	54	21	39%
MICRONESIA	8,487,012	1,516,687	18%	361	216	60%
FSM		ND	ND	66	37	56%
Guam ^			47%	7	7	100%
Kiribati		ND	ND	103	72	70%
Marshall Islands		ND	ND	90	60	67%
N. Mariana Islands ^			72%	17	11	65%
Nauru			15%	46	18	39%
Palau			22%	32	11	34%
POLYNESIA	11,286,661	2,140,911	19%	311	104	33%
American Samoa ^			43%	31	31	100%
Samoa			18%	57	19	33%
Cook Islands			27%	65	17	26%
Niue		ND	ND	4	2	50%
Pitcairn Islands		ND	ND	0.125	0.0625	50%
French Polynesia **			13%	51	7	14%
Tokelau		ND	ND	7	3	43%
Tonga			17%	50	12	24%
Tuvalu			13%	43	10	23%
Wallis and Futuna			59%	3	3	100%
Total PICTs	72,108,474			1,277	614	48%
Total PICTs (w/coastal budgets)	67,655,415	11,892,862	18%			
Total Countries	55,187,458			1,122	526	47%
Total Countries (w/coastal budgets)	50,736,436	7,361,860	15%			

Most recent budgets provided for period 2012-2015, see Annex 1 for more details. USD. Recurrent/operational only except * Includes some development or capital funds, ** excludes pearl culture, ^ May not include all federal or other resources, ND No data

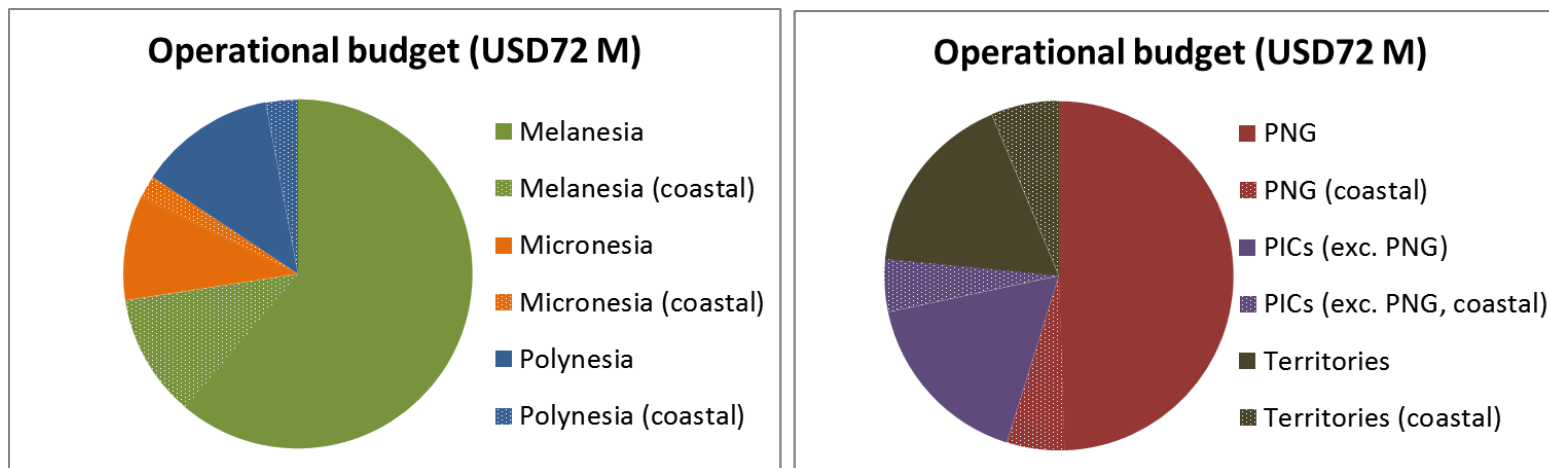


Figure 4: Proportion of Fisheries agency operational budget allocated to coastal fisheries by subregion and for PNG, the remaining countries and the territories.

Table 3: Indicative estimates of proportion of coastal fisheries budgets or total fisheries budgets expended on coastal fisheries management.

	Coastal fisheries management as a proportion operational coastal fisheries budget (%)	Coastal fisheries management as a proportion of total fisheries budget (%)	Source
Fiji	41%	15%	Govan et al. 2013 estimates based on workplan activities and budget analysis
Kiribati	10-30%	2-6%	Govan 2014 staff estimates based on effort and activities
Niue		50%	This survey. Fisheries staff estimate based on effort and activities
Samoa		15-20%	This survey. Fisheries staff estimate based on effort and activities
Solomon Is.	18%		Govan et al. 2013 estimates based on workplan activities and budget analysis
Vanuatu		20%	Govan et al. 2013 estimates based on workplan activities and budget analysis

Fisheries agency staffing

Approximately 1,277 staff are employed in PICT fishery agencies not counting observers and temporary project staff (Table 2 and Figure 5). The majority of staff are employed in the independent countries (88%). The five Melanesian countries account for just under half the total staff; PNG comprises just under half of these. About half the staff are reported to perform coastal fisheries duties at least 25% of their time though very few have exclusively coastal fisheries duties and virtually none have

exclusively coastal fisheries management duties (Samoa being the salient exception). The study was not able to assess staff qualifications to any great extent though territories appear to have more highly qualified albeit fewer staff.

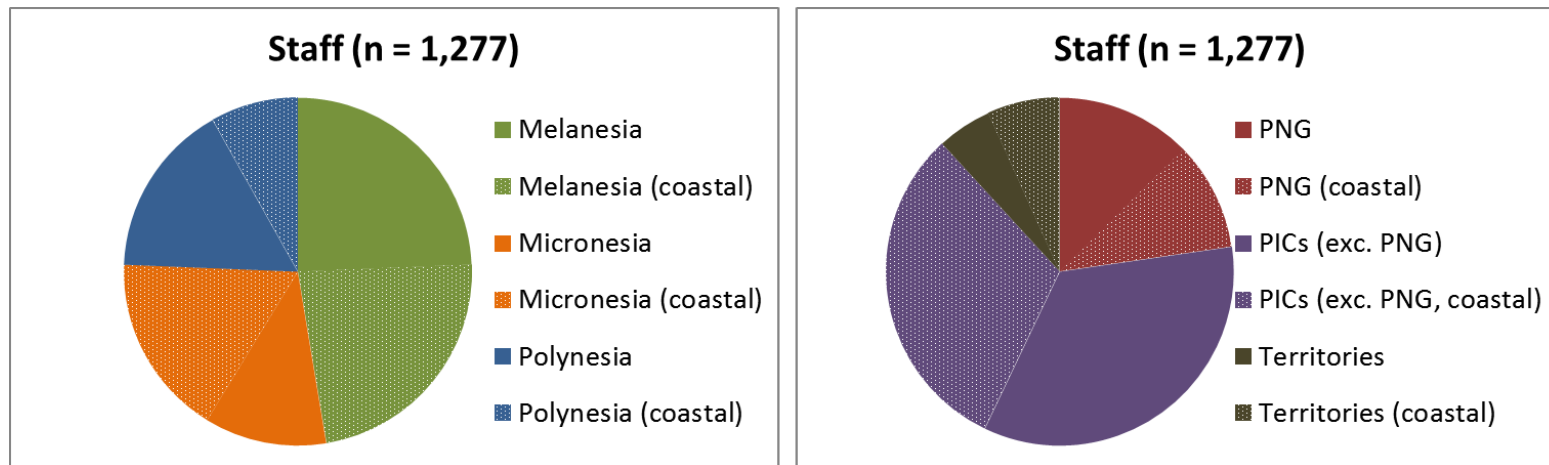


Figure 5: Distribution of fisheries agency staff in Pacific Island by subregion and for PNG, the remaining countries and the territories. Coastal staff = those performing at least 25%coastal fisheries duties.

Are PICT fisheries agency investments appropriate to the challenges?

The extreme diversity of PICTs makes it hard to compare government investments in fisheries or determine whether these may be reasonable for a given situation or PICT. In an attempt to gain insights into the relative situations of different countries the data were compared to available national information on the following (Table 4):

- **Total population to serve or manage:** Population of countries as estimated by SPC 2013.
- **Area to cover or manage:** Total area of Exclusive Economic Zone (EEZ) as stated in the SPC Fisheries Yearbook 2007 and Inshore Fishing Area (IFA) defined as the area up to 50 km from shore or 200 m depth, whichever comes first (Chuenpagdee et al., 2006). Note that IFAs occur only along inhabited coastlines (15/1/2015). IFAs provided the only standardised measure in the absence of comparable estimates of coastline or inshore areas.
- **Importance of the fisheries resources nationally:** Value of coastal and offshore fisheries production as calculated for 2007 by Gillett (2009). These are outdated but were used as a yardstick in the absence of other recent standardised regional data.
- **Pressure or reliance on resource:** Potential surplus or shortfall in fish required in 2035 as calculated by Bell et al. (2015) based on average consumption of 35kg per person per year and available reef area production and SPC projected population growth. Countries are classified as having: Surplus supply of reef fish (Surplus), Surplus supply of reef fish but with problems distributing this fish to urban centres (Problems)and Deficit of reef fish (Deficit).
- **Country development status:** Using the Human Development Index of UNDP (2014). Those ranked lower than 103 are considered "Medium Human Development" and below 145: "Low Human Development", ranked out of 187 total countries scored.

Table 4: Available information on population, extent of marine areas, value of fisheries production, projected food fish availability and human development in PICTs.

	Population 2013 ^a	Marine area (km ²)		Value of production (US\$) ^d		Food security 2035 ^e		Human Development ^f	
		EEZ Area ^b	Inshore Fishing Area ^c	Coastal fisheries	Offshore fisheries	Surplus / deficit	Grouping	HDI Index	Global HDI rank
MELANESIA	9,392,200	8,170,000	263,901	176,727,160	982,937,242				
Fiji Islands	859,200	1,290,000	43,299	67,562,500	29,821,250	53%	Problems	0.72	88
New Caledonia	259,000	1,740,000	36,464	24,459,770	8,563,218	86%	Surplus	ND	Territory
Papua New Guinea	7,398,500	3,120,000	146,204	62,500,000	732,338,172	-75%	Deficit	0.49	157
Solomon Islands	610,800	1,340,000	29,701	14,287,582	186,210,945	-29%	Deficit	0.49	157
Vanuatu	264,700	680,000	8,233	7,917,308	26,003,657	-279%	Deficit	0.62	131
MICRONESIA	524,900	10,405,000	48,000	86,412,205	597,666,956				
FSM	103,000	2,780,000	16,587	23,292,000	201,103,967	81%	Problems	0.63	124
Guam	174,900	218,000	216	412,000	0	-945%	Deficit	ND	Territory
Kiribati	108,800	3,550,000	6,809	47,058,824	197,051,374	-7%	Deficit	0.61	133
Marshall Islands	54,200	2,131,000	20,561	7,212,000	100,783,102	91%	Surplus	ND	ND
N. Mariana Islands	55,700	777,000	825	1,581,700	0	-211%	Deficit	ND	Territory
Nauru	10,500	320,000	13	1,501,681	80,001,361	-515%	Deficit	ND	ND
Palau	17,800	629,000	2,990	5,354,000	18,727,152	89%	Surplus	0.77	60
POLYNESIA	649,600	10,794,426	40,210	102,918,602	102,813,978				
American Samoa	56500	390000	490	644000	14135083	-122%	Deficit	ND	Territory
Samoa	187,400	120,000	2,004	34,461,434	8,412,136	-16%	Deficit	0.69	106
Cook Islands	15,200	1,830,000	1,213	2,279,412	5,772,059	67%	Surplus	ND	Territory
Niue	1,500	390,000	70	676,471	1,844,118	35%	Problems	ND	Territory
Pitcairn Islands	ND	844,426	27	74,265	0	ND	ND	ND	Territory
French Polynesia	261,400	5,030,000	26,469	36,212,874	28,247,299	52%	Problems	ND	Territory
Tokelau	1,200	290,000	279	711,397	397,415	64%	Surplus	ND	ND
Tonga	103,300	700,000	7,760	17,469,307	3,081,498	74%	Problems	0.70	100
Tuvalu	10,900	900,000	1,414	2,849,212	40,924,370	81%	Problems	ND	ND
Wallis and Futuna	12,200	300,000	483	7,540,230	0	64%	Problems	ND	Territory
TOTAL	10,566,700	29,369,426	352,112	366,057,967	1,683,418,176				

a: SPC 2013, b: SPC Fisheries yearbook 2007, c: Sea Around Us 2015, d: Gillett 2009, e: Bell et al. 2015, f: UNDP 2014 (ranked out of 187). See text for details.

Fisheries agency investments as a function of coastal and ocean area

Fisheries agency funding and staff resourcing in relation to marine and coastal area of PICTS may indicate challenges associated with managing the extensive areas within the jurisdiction of many PICTs. Relatively higher investment is made by territories, PNG and countries with relatively small marine areas (Table 5). The resources available for the inshore fishing areas are markedly low in the lesser developed countries. This is of particular as most of these countries are projected to have problems or deficits in the supply of coastal fish for food security by 2035.

Table 5: Fisheries agency operational budgets and staffing as a ratio of EEZ and Inshore Fishing Area (IFA). Data and terms explained in the text.

	Fish food security	Global HDI rank	Total budget/ EEZ (US\$/Km2)	Coastal budget/IFA (US\$/Km2)	Staff/EEZ (#/1000 km2)	Coastal staff/IFA (#/1000 Km2)
MELANESIA						
Fiji Islands	Problems	88	2.3	42.0	0.11	1.69
New Caledonia *	Surplus	Territory	4.0	52.2	0.02	0.66
Papua New Guinea *	Deficit	157	12.7	26.3	0.09	0.88
Solomon Islands	Deficit	157	1.3	12.7	0.06	1.58
Vanuatu	Deficit	131	1.5	34.7	0.08	2.55
MICRONESIA						
Federated States of Micronesia	Problems	124	0.3	ND	0.02	2.23
Guam	Deficit	Territory	7.7	3,667***	0.03	32.45
Kiribati	Deficit	133	0.3	ND	0.03	10.57
Marshall Islands	Surplus	ND	1.1	ND	0.04	2.92
Northern Mariana Islands	Deficit	Territory	0.7	479.8	0.02	13.34
Nauru	Deficit	ND	3.9	13,640***	0.14	1341***
Palau	Surplus	60	1.1	49.2	0.05	3.68
POLYNESIA						
American Samoa	Deficit	Territory	2.9	989.9	0.08	63.27
Samoa	Deficit	106	7.0	75.7	0.48	9.48
Cook Islands	Surplus	Territory	0.7	264.9	0.04	14.01
Niue	Problems	Territory	0.2	ND	0.01	28.56
Pitcairn Islands	ND	Territory	0.0	ND	0.00	2.30
French Polynesia *, **	Problems	Territory	1.3	30.7	0.01	0.26
Tokelau	Surplus	ND	ND	ND	0.02	10.75
Tonga	Problems	100	1.4	21.2	0.07	1.55
Tuvalu	Problems	ND	0.5	44.4	0.05	7.07
Wallis and Futuna	Problems	Territory	0.8	295.4	0.01	6.21

Recurrent/operational budgets for fisheries only except * Includes development or capital funds, ** excludes pearl culture, *** off scale, ND No data

Fisheries agency investments as functions of population and estimated value of fisheries

Budget allocated in relation to national population may be a useful indicator of the challenges to be faced in terms of managing fishers or providing services to the general population. The larger countries, particularly those lesser developed, show the lowest allocations per capita in terms of staff or finance (Table 6). It should be noted that staff levels, tasks and qualifications vary greatly between countries and thus budget is likely a more appropriate indicator. Fisheries agency resource management budgets compared to estimates of the value of the fishery (albeit an underestimate as the data are 5-7 years out of date) give some indication of the investment that PICTs are making in relation to the financial benefits they accrue. Govan (2013) reviewed available information and approximated a global average fisheries management costs of 6%

Table 6: Fisheries agency operational budgets and staffing compared to population and estimated value of fisheries in 2007. Data and terms explained in the text.

	Fish food security	Global HDI rank	Budget (US\$)/ population	Staff/ 1000 population	Total budget / total fisheries value ^a	Coastal fisheries budget / coastal fisheries value ^a	Total staff / total fisheries value (millions) ^a	Coastal staff / coastal fisheries value (millions) ^a
MELANESIA								
Fiji Islands	Problems	88	3	0.17	3.1%	2.7%	1.5	1.1
New Caledonia *	Surplus	Territory	27	0.14	21.2%	7.8%	1.1	1.0
Papua New Guinea *	Deficit	157	5	0.04	5.0%	6.2%	0.4	2.1
Solomon Islands	Deficit	157	3	0.13	0.9%	2.6%	0.4	3.3
Vanuatu	Deficit	131	4	0.20	2.9%	3.6%	1.6	2.7
MICRONESIA								
Federated States of Micronesia	Problems	124	7	0.64	0.3%	ND	0.3	1.6
Guam	Deficit	Territory	10	0.04	405%***	192%***	17.0***	17***
Kiribati	Deficit	133	11	0.95	0.5%	ND	0.4	1.5
Marshall Islands	Surplus	ND	44	1.66	2.2%	ND	0.8	8.3
Northern Mariana Islands	Deficit	Territory	10	0.31	34.6%	25.0%	10.7	7.0
Nauru	Deficit	ND	119	4.38	1.5%	12.2%	0.6	12.0
Palau	Surplus	60	37	1.80	2.8%	2.7%	1.3	2.1
POLYNESIA								
American Samoa	Deficit	Territory	20	0.55	7.6%	75.3%	2.1	48.1***
Samoa	Deficit	106	4	0.30	2.0%	0.4%	1.3	0.6
Cook Islands	Surplus	Territory	79	4.28	14.9%	14.1%	8.1	7.5
Niue	Problems	Territory	63	2.67	3.7%	ND	1.6	3.0
Pitcairn Islands	ND	Territory	ND	ND	2.7%	ND	1.7	0.8
French Polynesia *, **	Problems	Territory	24	0.20	9.8%	2.2%	0.8	0.2
Tokelau	Surplus	ND	ND	5.83	ND	ND	6.3	4.2
Tonga	Problems	100	9	0.48	4.7%	0.9%	2.4	0.7
Tuvalu	Problems	ND	45	3.94	1.1%	2.2%	1.0	3.5
Wallis and Futuna	Problems	Territory	20	0.25	3.2%	1.9%	0.4	0.4

^a Data from Gillett (2009) for year 2007. Recurrent/operational budgets for fisheries only except * Includes development or capital funds, ** excludes pearl culture, *** off scale, ND No data

of the value of the fisheries as a comparative yardstick though this might need to be higher for small scale and complex fisheries.

The total of operational budgets account for some 3.4% of the 2007 value of production, however for independent countries and excluding PNG this figure is far lower at 1.4%. The operational budgets of several territories and Cook Islands exceed 10% of the overall value of the fishery but the majority of independent countries fall below 3%. The more limited data set for coastal fisheries shows a similar distribution. However, operational budgets include a major proportion of fisheries development that may be expected to increase pressure on the resource. In the case of coastal fisheries, development activities probably account for between 60-95% of the budget compounding indications that most countries may be severely under-investing in resource management.

Conclusions and recommendations

Coastal fisheries policy

The relative lack of coastal fisheries policy, and the general absence of practical sustainable management strategies and structures where policy exists, suggests that coastal fisheries management has a long way to go before it is meaningfully reflected in policy, let alone action. In the short term, improving coastal fisheries management might be better addressed through improved drafting of workplans, staff terms of reference and increased budgeting rather than production of higher level policy documents of dubious practical application. Even so, as noted by Govan (2013) after scrutinizing workplans and staff terms of reference in relation to actual daily work of staff it is likely that actual implementation of coastal fisheries management activities depend most on the will of individual officers and their direct line managers.

- **Few countries have coastal fisheries policies and those that exist seem generally unlikely to result in coastal fisheries management.**
- Future attention should focus on the specific activities of staff as laid out in workplans and ToRs and particularly the resources allocated to effecting routine priority management activities.

Community-based Fisheries Management

Over 900 CBFM sites reported across the region still represent a low proportion of total communities (less than 10%) and fisheries resources covered. A major caveat has been highlighted in Vanuatu (Johannes and Hickey 2004) and other countries (Govan et al. 2009): where sufficient rights are held by local communities (e.g. under customary marine tenure) and/or a pressing need arises (e.g. cultural obligations or increased fishing pressure), Pacific Island communities may carry out local fisheries management based on traditional practices without external support. No systematic surveys are available of this phenomenon but the strong possibility exists that significant numbers of communities are indeed enforcing basic coastal fisheries management such as the exclusion of non-local fishers and small area closures.

- **Despite large numbers of CBFM sites reported these generally constitute a small proportion of total coastal communities and questions exist as to the effectiveness of all the sites.**
- Future attention should focus on establishing minimum criteria for identifying and assessing CBFM sites and their effectiveness in countries and the prevalence, effectiveness and means of better supporting traditional and local management that occurs outside established projects and programs.

Fisheries operational budgets

Most fisheries agencies do not clearly distinguish budget lines and staffing between coastal fisheries management and other functions.

- **Total fisheries department operational budgets come to over US\$ 70 million but excluding PNG and territories the total for the independent countries is much reduced, at around US\$ 15.5 million.**

- Coastal fisheries receives just over US\$ 12 million (18% of the total) but excluding PNG and territories the coastal fisheries allocation for the independent countries is around US\$ 3.5 million (22% of the total).
- Allocations for coastal fisheries management are not disaggregated by countries but probably account for only 10-40% of the overall coastal fisheries budgets for all but some of the territories and smaller PICTs.
- The fact that most fisheries agencies do not clearly distinguish budget lines and staffing between coastal fisheries management and other functions indicates that despite regional (and in some instances national) policy promoting sustainable resource management agencies have yet to systematically and strategically address sustainable management. These data should be collected in future and monitored as indicators of coastal fisheries management implementation.

Relative fisheries management expenditure and support

The relative expenditure in terms of area to be managed is approximately double in the territories compared to the independent countries (Figure 6) and while the Polynesian countries are challenged by proportionally large EEZs, Melanesia is challenged by large inshore fisheries areas.

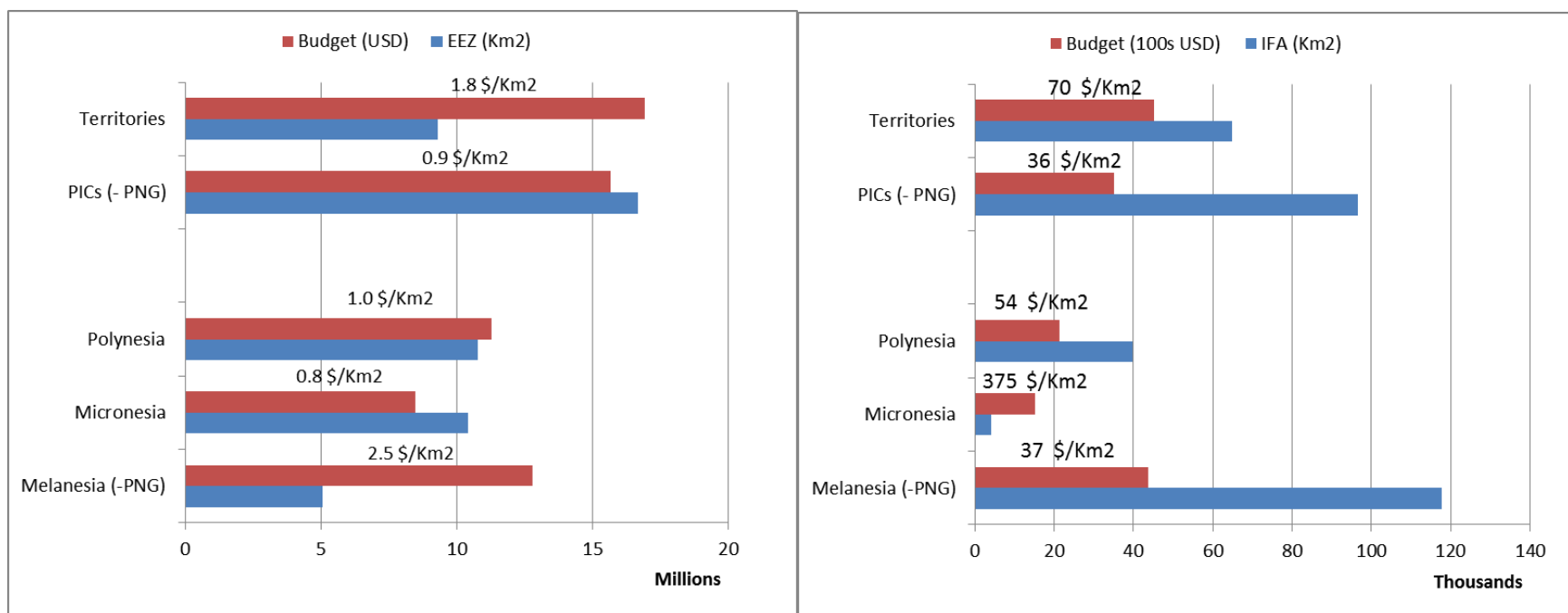


Figure 6: Average operational expenditure of fisheries agencies compared to the area of their EEZ and coastal fisheries operational expenditure compared to their Inshore Fisheries Area by region and territorial status. PNG is excluded as a major outlier.

The overall and coastal fisheries budgets in relation to estimates of the production value of the fisheries concerned (below 3.5%) indicate a substantial under-investment in fisheries management in the independent countries (1.4%) compared to global best practice (~6% for management alone) and the region's territories. More than 95% of the region's population reside in countries projected to experience problems in the supply of coastal fish for food security, 84% are projected to experience a deficit.

To some extent these levels of underinvestment may relate to the low development status of these countries but this lack of sustainable management investment gives rise to graver concerns when the impact of projected deficits in fish supply on predominantly fisheries dependent subsistence populations are taken into account (Figure 7).

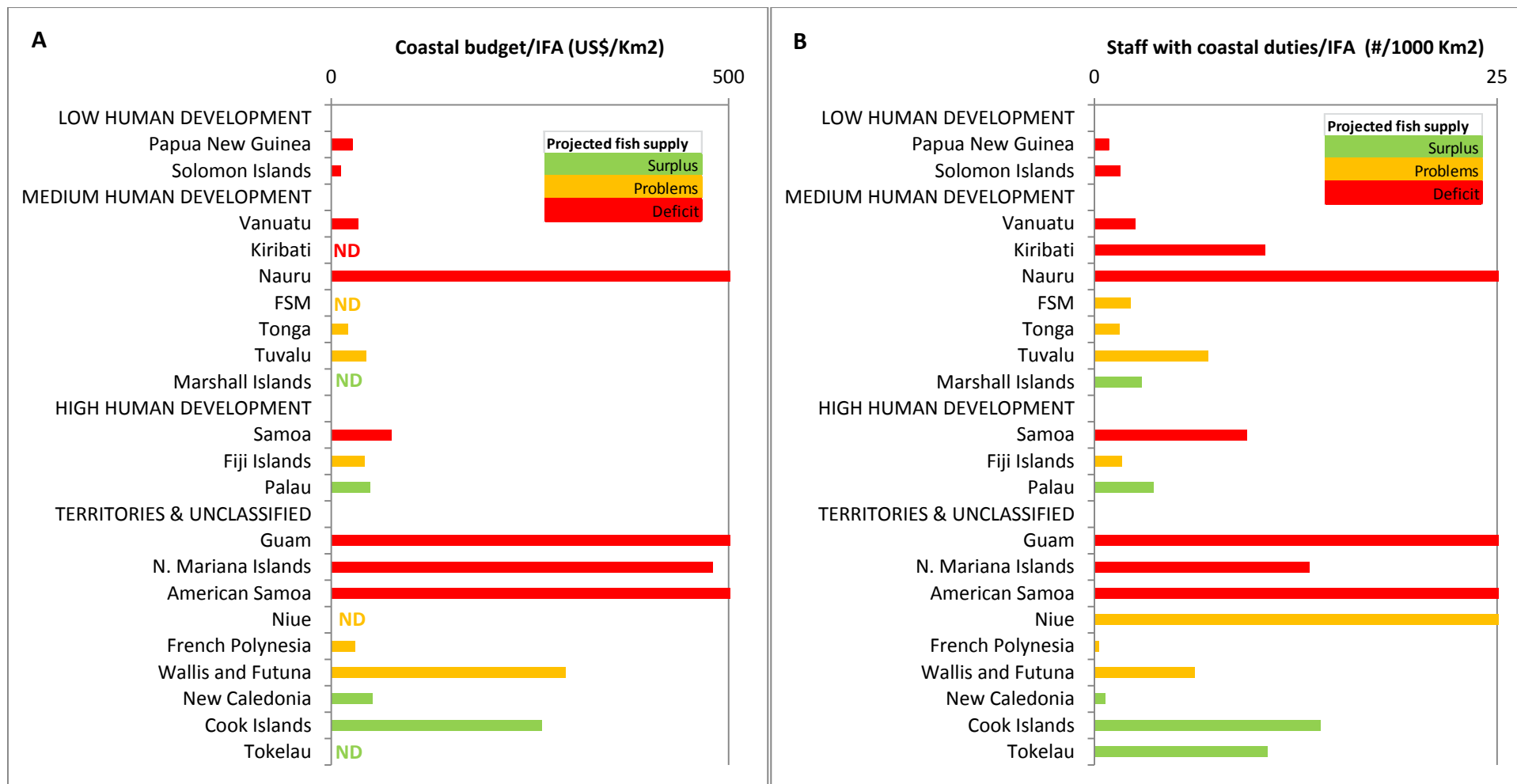


Figure 7: Operational budgets (A) for coastal fisheries and staffing with coastal fisheries duties (B) in comparison to the Inshore Fisheries Area. {ICTS are ranked by development status according to the Human Development Indicators of UNDP (2014) and colour codes represent projected fish supply according to Bell et al. (2015).

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Annex 1: Methodology and data restrictions

	<i>Year of budget</i>	<i>Notes on budget and staffing data</i>	<i>Sources for total number of communities information</i>
MELANESIA			
Fiji Islands	2013	Budget data separates development and capital expenses. Staff data does not include around 100 project staff utilized each year. Updated from Govan et al. 2013	Villages (Registered. Excludes settlements. Fiji Government)
New Caledonia (*)	2012	Some capital and development funds included in budget, salaries not included. Govan et al. 2013	ND
Papua New Guinea (*)	2012	Some capital and development funds included in budget. Includes estimates of provincial and local government budget and staff. Data from Govan et al. 2013 but needs more comprehensive analysis due to the size and scale of the country	Communities (NRI 2010: based on 6131 wards, approx. 4-5 villages per ward, estimated that 1 million of the 7 million population “coastal”)
Solomon Islands	2012rev	Staff 2014 data, budget 2012 revised estimate in 2014 budget. Updated based on Govan et al. 2013.	Communities (SPC PopGIS)
Vanuatu	2012	Updated based on Govan et al. 2013.	Villages (Hassall and Tipu 2008 estimating 70% coastal as per Johannes and Hickey 2003. SPC PopGIS suggests 3624 communities))
MICRONESIA			
Federated States of Micronesia	2014	Sum of national and four state budgets. The operation cost is inclusive of the Travel, OCE and Fixed Assets. Cost for fixed assets require good justifications during budget hearings on proposed annual budget submissions and are subject to approval on a need basis.	Municipalities (wikipedia)
Guam	2010-15	All staff work/participate on both coastal and oceanic programs, projects, and activities. Some projects’ budgets were split between oceanic and coastal.	Villages (SPC questionnaire - Brent Tibbatts)
Kiribati	2012 (est)	Based on Govan 2014. Budget not differentiated across coastal and offshore.	Villages (Gov. Kiribati census in Govan 2013. Also 20 atolls / Island councils and 3 urban councils)
Marshall Islands	2013	MIMRA as an authority collects revenue and fines.	Communities (RMI Atoll Grouping for Commercial Activities. Also 24 atolls/municipalities)
Northern Mariana Islands	2013	DFW does not perform any work on aquaculture other than permitting. Data on budgets from Annual Reports for Fisheries Program and FADs Program as differentiated from projects on offshore fisheries.	Towns and villages (wikipedia)
Nauru	2013/14	Fisheries department excluding aid funded projects (Artisanal Fisheries Outboard motor project and Institutional Strengthening Project)	Districts (Hassall and Tipu 2008)
Palau	2014	Bureau of Oceanic Fisheries included but provided separately. Other coastal functions are carried out by e.g. DFWS or MPAs/PAN. Restructure of Fisheries agency in progress.	States (SP questionnaire. Wikipedia lists 22 villages)
POLYNESIA			
American Samoa	2015	Insufficient data on offshore or indeed coastal fish development data provided. Figures available are for the Fish and Wildlife Grant .The figures do not include all federally funded programs such as fisheries development projects by the Western Pacific Fisheries Management Council and support from NOAA including the Pacific Islands Fisheries Science Center	Villages (wikipedia)
Samoa	2013/14	Proportion for community based management based on Govan et al 2009.	Villages (SPC questionnaire. Hassall and Tipu 2008 state 247 villages)
Cook Islands	2013/14	Coastal budget includes aquaculture but not pearl oysters. Project and aid monies average 700k USD/yr	Districts (http://netlibrary.net/articles/cook_islands#Administrative_Subdivisions)
Niue	2013/14	From Fisheries DAFF draft estimates not broken down by inshore/offshore	Villages (wikipedia)
Pitcairn Islands	2014	Project funded – one part time staff	ND

French Polynesia	2014	Pearls excluded (approximately 35% of overall budget), Does not include capital and development funds	Communes (SPC questionnaire)
Tokelau	ND	No budget data received. Staff data provided by SPC	Villages (SPC questionnaire)
Tonga	2013/14	Inshore fisheries is made up of outer islands (Vava'u & Ha'apai) including Community and Advisory and Aquaculture Section. Staffing include non-established staff.	Villages (Hassal and Tipu 2008. 24 districts. SPC Questionnaire states 36 coastal communities)
Tuvalu	2013	Used 2015 Government budget to source 2013 actual budget. Budget includes admin but not Ministerial overhead. Restructure in progress.	Island councils (Hassall and Tipu 2008. SPC Questionnaire states 2 villages per island in which case 18 villages)
Wallis and Futuna	2014	Data from Fisheries Officer	Villages (SPC questionnaire)

Annex 2: Legislation and policy

Source: Responses from email survey for this study (2014) and SPC administered questionnaire (2015).

American Samoa

Primary legislation and regulations

American Samoa Code Annotated (A.S.C.A) Section 24 - Fishery Regulations
Administrative Rule No. 01-2008

Coastal fisheries policy

None

Management plans

American Samoa Fishery Ecosystem Plan 2010
13 Community Fisheries Management Plans

Cook Islands

Primary legislation and regulations

Marine Resources Act 2005.
Marine Resources Bill under discussion
Marine Resources (Aitutaki and Manuae Bonefish Fishery) Regulations 2010
Marine Resources (Licensing) Regulations 2012
Shark Regulations

Coastal fisheries policy

Policy for Coastal Fisheries Resources (Final draft)

Management plans

Aitutaki Trochus Management Plan
Cook Islands Aquaculture Development Plan
Manihiki Lagoon Management Plan
Trochus management Plan
Bonefish Management Plan
At least 6 local closures under the Ra'ui scheme

Federated States of Micronesia

Primary legislation and regulations

Marine Resources Act of 2002 (Public Law 12-34)
Title 26 Chapter 6, known as the Marine Resources Conservation Act of 1981:

State/Provincial/Subnational

– Chuuk State: Fisheries Act
– Kosrae State: Marine Resources Act of 2000
– Pohnpei State: Marine Resources Conservation Act 1981 and Fisheries Protection Act 1995
– Yap State: Public Law 06-01-07

Coastal fisheries policy

None

Management plans

Draft sea cucumber management
10 communities implementing CBFM - Pohnpei/Pakin: (7) communities Yap: (3)

Fiji Islands

Primary legislation and regulations

Fisheries Act (Cap. 158)
Inshore decree (draft since 2010)
Offshore Fisheries Management Decree 2012
Fiji 1978 Marine Spaces Act.
Marine Spaces Regulations 2010
Environment Management Act 2005.
Endangered and Protected Species Act 2002 and regulations (2003) with CITES appendix.

Coastal fisheries policy

None

Management plans

None / Draft Sea Cucumber management plan
Over 400 villages carrying out CBFM, many with local management plans – though not formally recognized

French Polynesia

Primary legislation and regulations

Code de l'environnement de la Polynésie française

Délibérations "pêche" n°88-183 et 88-184 AT et compléments
Arrêtés CM portant création des AMP, ZPR , PGEM et Biosphère

Coastal fisheries policy

Management plans

Various
27 local management plans at commune level

Guam

Primary legislation and regulations

Guam Administrative Rules and Regulations (GARR) Title 9, division 2, Chapter 12. Including Fishing Regulations

Coastal fisheries policy

Included in 5GCA Chapter 60 and 63, 9GARR Chapter 12 5 GCA Government Operations Ch . 63 Fish , Game , Forestry & Conservation

Management plans

Two management plans for recreational use for two of Guam's marine preserves

Kiribati

Primary legislation and regulations

Fisheries Act 2010
Local Government Act 1984 with 2006 amendments
Environment Act
Wild life Ordinance
Regulations on certain areas and on Lobsters

Coastal fisheries policy

Kiribati National Fisheries Policy 2013-2015 (4 of 20 strategic actions are coastal fisheries management)

Management plans

Draft for Bêche de Mer, bonefish, anadara, red snapper, giant clams and spider conch
5 village management plans are under development, at least two Island Council byelaws refer to fisheries

Marshall Islands

Primary legislation and regulations

Marshall Islands Marine Resources Authority Act 1997/2012 (Title 51).
Sea Cucumber Regulations 2013
Aquarium fishery Regulations (draft)

Coastal fisheries policy

No specific coastal fisheries policy but the following exist:
National Fisheries Development Plan
Aquaculture Issues & Development Plan
Coastal Management Framework
Reimaanlok

Management plans

National Sea Cucumber Fishery Management Plan 2012
Aquarium Fishery Management Plan
Aquaculture Issues & Development Plan
Traditional "Mo" System
13 local fisheries management or coastal management plans

Nauru

Primary legislation and regulations

Fisheries Act 1997 – 18/97 and Nauru Fisheries and Marine Resources Authority Act 1997 17/97 - currently pending amendment
Sea Boundaries Act 1997
Statute Law Revision Act 2011 – 8/11
- Fisheries Regulations 1998 (as amended)
- Fisheries (PNA Third Implementing Arrangement) Regulations 2009
- Fisheries (Amendment) Regulations 2010
- Fisheries (PNA Third Implementing Arrangement) (Amendment) Regulations 2010

Coastal fisheries policy

Management plans

Coastal Fisheries Management Plan, Meneng District 2006.

New Caledonia

Primary legislation and regulations

Organic Law Of New Caledonia, 19th March 1999
Environmental code of the Southern Province May, 2009
Environmental code of the Northern Province Oct 2008
Resolution no 243-2006/APN of 1 September 2006 Northern Province
Environmental code of Loyalty Islands Province - in draft

Resolution no 2008-92/API of 19 December on sustainable bottom fisheries
Resolution no 93-51/API of 22 December 1993 on coconut crab (*Birgus Latro*)
protection

Coastal fisheries policy

None located

Management plans

None located. Ouvea community process and perhaps 20 tribes undergoing
CBFM development.

Niue

Primary legislation and regulations

Domestic Fishing Act 1995

Territorial Seas and Exclusive Economic Zone Act 1997

Niue Territorial Sea and Exclusive Economic Zone (Amendment) Act 2006

Domestic Fishing Regulations 1996

Coastal fisheries policy

Niue National Coastal Fisheries Management and Development Plan 2014-
2018 (draft?)

Management plans

Niue Pelagic Fishery Plan

Northern Mariana Islands

Primary legislation and regulations

Commonwealth Code: Title 2: Natural Resources

Subchapter 85-30.1: Non-Commercial Fish and Wildlife Regulations

Endangered Species Act (ESA)

Coastal fisheries policy

None

Management plans

See regulations

Palau

Primary legislation and regulations

Title 27 and Title 24 of the Palau National Code. 1997

Marine Protection Act of 1994, Marine Protection Amendment, RPPL No. 9-28
2014 (Giant Clam Seed Sustainability Project Fund)

Protected Areas Network Act (PAN Act) 2003

Coastal fisheries policy

Management plans

5 community plans

Pitcairn Islands

Primary legislation and regulations

Fisheries Zone Ordinance 2001

Coastal fisheries policy

Management plans

Marine and fisheries management plan is under development

Papua New Guinea

Primary legislation and regulations

Fisheries Management Act 1998 (amended 2012)

Organic Law on Provincial and Local-level Governments of July 1995

Fisheries Management Regulation 2000, Fisheries (Torres Strait Protected
Zone) Regulation

Gazettal Notices (various prohibiting gears or size limits etc)

Coastal fisheries policy

None but:

National Aquaculture Policy

National Fishing Aggregating Device Management Policy

Trail Fishing Policy

Management plans

National Tuna Management Plan

National Beche-de-mer Management Plan

Barramundi Fishery Management Plan

Torres Strait and Western Province Tropical Rock Lobster Management Plan

Gulf of Papua Prawn Fishery Management Plan

National Shark Long-line Fishery Management Plan

National Live Reef Food Fish Fishery Management Plan (drafted, and reviewed
in 2009 to incorporate Ecosystem Approaches to Fisheries Management)

National Marine Aquarium Fishery Management Plan (drafted)

88 communities documented to carry out CBFM or LMMAs

Samoa

Primary legislation and regulations

Fisheries Act of 1988 plus amendments inc. Fisheries Amendment Act 2002 which addresses village bylaws
Territorial Sea Act of 1971
Exclusive Economic Zone Act of 1988.
Fisheries Regulation 1996

Coastal fisheries policy

Samoa Coastal Fisheries Management and Development Plan 2013 - 2016

Management plans

102 village based management plans
Aquaculture MDP
Sea cucumber plan finalized
Trochus plan draft

Solomon Islands

Primary legislation and regulations

Fisheries Act 2015
Provincial Fisheries Ordinances - Western Province Resource Management Ordinance 1994, Western Province Coastal and Lagoon Shipping Ordinance 1991, Guadalcanal Wildlife Management Area Ordinance 1990, The Isabel Province Wildlife Sanctuary (Amendment) Ordinance 1991, Isabel Province Resource Management Ordinance, Temotu Environment Protection Ordinance 1989, Makira Preservation of Culture and Wildlife Ordinance, Choiseul Province Resource Management Ordinance 1997, Makira Ulawa Province Fisheries Ordinance, Guadalcanal Fisheries Ordinance 2009, Choiseul Province Fisheries and Marine Environment Ordinance 2011, Western Province Fisheries Ordinance 2011.
Wildlife Protection and Management Act 1998
Environment Act 1998
Protected Areas Act 2010
Regulations (for new Act under development)

Coastal fisheries policy

Solomon Islands National Strategy for the Management of Inshore Fisheries and Marine Resources 2010-2012 and revision in draft: MFMR Inshore and Provincial Fisheries Development and Management (Draft)

Management plans

Aquaculture development plan
MFMR Inshore Fisheries Marketing Strategy (Draft)
184 tracked CBRM sites

Tokelau

Primary legislation and regulations

Tokelau Fisheries Policy and Action Plan 2011?
Village bye-laws

Coastal fisheries policy

Management plans

Inshore Fisheries Management Plan for Fakaofu (draft)

Tonga

Primary legislation and regulations

Fisheries Management Act 2002
Aquaculture Management Act 2003
Maritime Zones Act 2009
Fisheries Management (conservation) Regulation 2008
Fisheries (Coastal communities) Regulation 2009
Special Management Order.

Coastal fisheries policy

None

Management plans

Special Management Areas regulations and management plans
Tonga National Marine Seaweed Fisheries Management and Development Plan 2012-2013
Marine Aquarium Fishery Management Plan (undated)
Tonga National Sea Cucumber Fishery Management and Development Plan (undated)
Tonga Deepwater Fisheries Management Plan 2014 – 2016
Kingdom of Tonga National Plan of Action (NPOA) Shark-Plan (2014-2016)
Tonga National Tuna Fisheries Management and Development Plan (2012 – 2015)
Tonga Aquaculture Commodity Development Plan 2010-2014
10 Special Management Areas (SMAs) and regs

Tuvalu

Primary legislation and regulations

Marine Resources Act 2008

Marine Resources (Amendment) Act 2012

Conservation Areas Act 1999

Falekaupule Act 1997

Coastal fisheries policy

The National Master Plan for Fisheries Development 2008 – 2011

Management plans

Possibly 9 conservation areas or LMMAs on Outer Islands and Funafuti

Vanuatu

Primary legislation and regulations

Vanuatu Fisheries Act No.10 of 2014

Fisheries regulations (Order No. 28 of 2009 and others)

Maritime Zones Act No. 6 of 2010

Decentralization and Local Government Regions Act 1994 and 1997,

Environmental Management and Conservation Act 2002

Customary and traditional rights and practices(constitution)

Coastal fisheries policy

None

Management plans

National marine aquarium trade management plan 2009

Vanuatu Aquaculture Development Plan 2008–2013

Vanuatu National Coconut Crab Fishery Management Plan

National Management Plan for sea cucumber – draft

Tuna management plan

Wallis and Futuna

Primary legislation and regulations

Délibération 73-AT-2005 : modernisation de la réglementation en matière de pêche et la commercialisation des produits de cette activité

Arrêté n° 94-199 : Pêche au filet

Arrêté n° 94-200 : Moyens de pêche interdits

Arrêté n° 94-201 : Pêche autour des Dispositifs Concentrateurs de Poissons

(DCP) Arrêté n° 94-202 : Pêche sous-marine

Arrêté n° 94-202: Réglementations concernant les Crustacés

Arrêté n° 94-204 : Pêche des trocas

Délibération 73-AT-2005 : modernisation de la réglementation en matière de pêche et la commercialisation des produits de cette activité

Coastal fisheries policy

In draft

Management plans

None located

