Summary Results from Outreach Interviews Conducted on the Potential Formation of a Pacific Islands Marine Protected Area Community

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INTRODUCTION

Marine Protected Area (MPA) managers in the Pacific Islands face a unique set of challenges including limitations in human and financial resources and isolation from other MPAs. While each MPA has its own strengths and issues, most share the challenge of capacity limitations. They also have in common the great distances between islands that restrict the ability of managers to learn from and apply approaches that have been successful elsewhere. These shared challenges inhibit Pacific Islands MPA systems from being as effective as possible.

Nevertheless, many people feel the answers to today's challenges can be found in the islands. Traditional management approaches of marine resources in the Pacific Islands are thousands of years-old. For MPA managers the difficulty lies in building on these traditional approaches while adapting to modern technology and practices. Therefore, to play a successful role in MPA management, traditional and local approaches must be actively fostered, developed, and integrated into current MPA systems.

In February 2005, members of the National Oceanic and Atmospheric Administration (NOAA), the Community Conservation Network, The Nature Conservancy, and the University of Guam Marine Lab, met in Honolulu to discuss existing networking efforts and explore potential solutions to overcome some of these unique challenges. The outcome of these discussions was the idea of potentially initiating and developing a Pacific Islands Marine Protected Area Community, to service the US Pacific Islands and Freely Associated States (FAS). Through such a Community, a collaboration of MPA managers, non-governmental organizations, federal, state, and territorial agencies, local communities, and other stakeholders working together was envisioned in order to collectively enhance the effective use and management of MPAs in the Pacific Islands. Such an initiative would inherently be focused on assisting MPA managers in the region prioritize and address their immediate and long-term challenges. The initiative would also seek to build off of any complimentary strengths and weaknesses between the US Pacific Islands and FAS, and deliberately integrate MPA activities within the region as a whole.

While the concept of such a 'community' could have many potential benefits, it was recognized that the perceived concerns, needs, and interests of MPA managers and stakeholders across the region would first need to be assessed and discussed in order to confirm and logically guide the establishment of such a 'community'. This document presents the summary results of a series of interviews that were held during 2005 in order to assess the region's concerns, needs, and interests relating to Pacific Islands MPA management. The purpose of presenting these results is:

(1) To build the knowledge and understanding of the perceived strengths, challenges, and needs of managers and partners regarding Pacific Islands MPAs; and
(2) To serve as background material to help inform and guide discussions that will occur during a workshop that is to be held during late August 2005 and attended by 60 representatives working on MPA management from throughout the Pacific Islands.

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METHODS

A structured interview composed of eight open-ended questions and one multiple choice question was developed and peer reviewed in February and March 2005. Between March and August 2005, over one hundred people were interviewed by NOAA representatives from the US Pacific Islands and FAS. Interviewees were identified as professionals who are either managing or directly supporting one or more MPAs in the US Pacific Islands and FAS, or who are currently working more broadly on addressing coastal and marine resource management issues in one or more of these islands. On average, each interview took approximately one hour to complete. The majority of interviews were completed on-site. Interview responses were recorded, collated, coded, and analyzed. A summary of the results generated through these interviews follows.

SUMMARY OF RESULTS

Characteristics of Respondents

Between March and August 2005, a total of 112 people were interviewed by NOAA representatives across the following seven US Pacific Islands and FAS: (a) American Samoa (n=17 respondents); (b) the Commonwealth of the Northern Marianas Islands (n=7); (c) the Federated States of Micronesia (FSM; n=41 total), represented by Chuuk (n=10), Korsrae (n=11), Pohnpei (n=10), and Yap (n=10); (d) Guam (n=15); (e) Hawaii (n=12); (f) the Republic of the Marshall Islands (n=9); and (g) the Republic of Palau (n=11). Nearly half (46%) of all respondents are working in the US Pacific Islands (i.e., in the State of Hawaii or in the Trust Territories of American Samoa, CNMI, and Guam), with the remainder (54%) working in FAS.

In terms of organizational affiliation, half (52%) of all respondents are currently working for a local (e.g., State or Territory) government agency. The remainder of respondents are split among working for a national (federal) government agency (20%), a non-governmental conservation organization (16%), or within academia (14%). Nearly all respondents (n=104; 93%) are employed in organizations outside of the US federal government.

The 112 individuals interviewed represent a wide range of professional occupations and positions working on, or in partnership with, operating MPAs in the region. Over half (54%) of those interviewed are in management positions; i.e., 'managers'. Of the remainder, four types of respondents were nearly equally commonly interviewed: academics, biologists (non-manager), MPA advocates, and political appointees or staff (see Figure 1). Four representatives from coastal and marine tourism groups were interviewed, as well as three volunteers. Nearly three-quarters (71%) of all respondents are male.

Of the 60 managers interviewed, over half (n=33; 55%) are MPA managers, meaning that they are individuals who have the legal authority and responsibility to either manage MPA sites or provide direct management support. The remaining managers are split between either marine resource managers (20%; includes fisheries and coral reef managers) or natural resource managers (25%; includes coastal zone, wetland, watershed, and wildlife managers).

Perceived MPA Strengths and Challenges

The first two questions asked during the interviews related to assessing the perceived strengths and challenges of MPA management in the Pacific Islands:

Figure 1. Interview respondent type, by occupation/position**.**
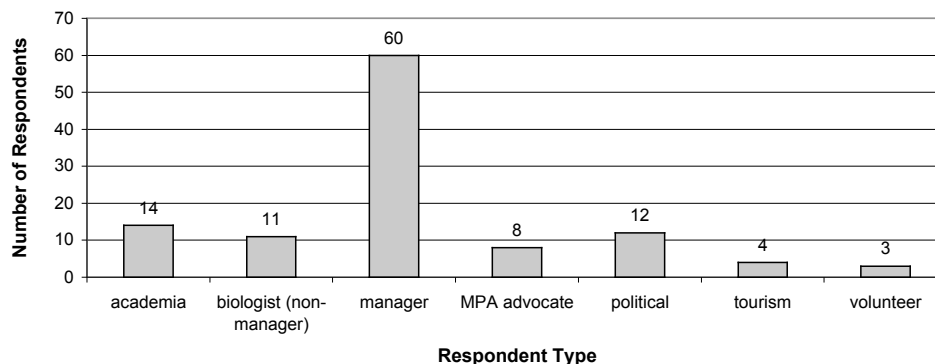
Q1: *"What are the top two to three strengths of your MPA program?"*
Q2: *"What are the top three to five challenges you face in managing your MPAs?"*

The 112 open-ended responses provided to this question by respondents were recorded by the interviewers and later coded as one of 28 total 'MPA strength' responses cited by respondents (see Table 1), spread among five categories: external strengths, management (internal) strengths, governance strengths, design strengths, and historical (contextual) strengths.

The frequencies of perceived MPA strengths are shown in Figure 2. The top five most frequently cited MPA strengths across all respondents (i.e., both US islands and FAS) are:

(1) 'Public support/buy-in' (n=41; cited by 38% of all respondents);
(2) 'Public participation and engagement in management activities' (n=29; cited by 27% of all respondents);
(3) 'Public perception of MPA effectiveness' (n=25; cited by 23% of all respondents);
(4) 'Public education and outreach, awareness raising' (n=24; cited by 22% of all respondents); and
(5) 'Partnerships and coordination between government agencies and/or other non-governmental organizations' (n=22; cited by 21% of all respondents).
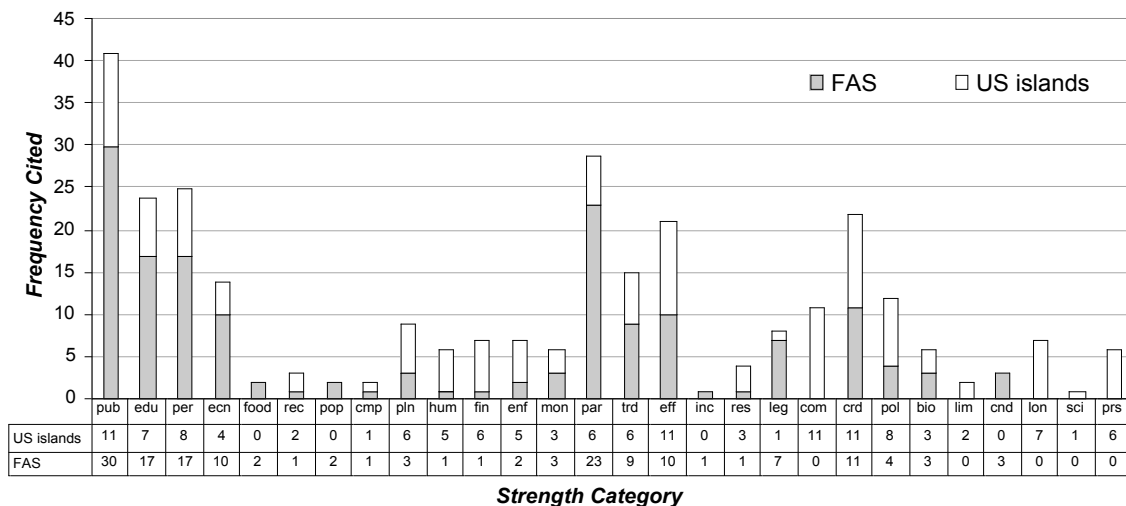
These top five most frequently cited MPA challenges represent just under half (48%) of total responses. It should also be noted that 'documented effectiveness of MPA management efforts' was cited nearly as frequently (n=21) as 'partnerships and coordination'. A higher degree of agreement on perceived MPA strengths is found between FAS respondents than between US islands respondents. Accordingly, FAS responses account for most of the frequencies within the top five reported strengths.

Certain responses within each category are closely related in nature. For example, within the 'external' category of responses (8 possible responses), the three 'public support/buy-in', 'public education and outreach', and 'public perception of MPA effectiveness' responses are closely related. These three responses dominate the perceived MPA strength results, accounting for nearly one-third (30%) of all responses provided by all respondents across all possible categories. Moreover, responses that fall within the external (38%) and management/ internal (36%) categories account for three-quarters (74%) of all perceived MPA strength responses provided across the region to interviewers.

Table 1. A list of the 28 possible 'MPA strength' responses offered by respondents, by category.

Code	Response category – response offered
Pub	External Strength – Public support/buy-in (local/community)
Edu	External Strength – Public education and outreach; awareness raising
Per	External Strength – Public perception of MPA effectiveness/performance
Ecn	External Strength – Economic linkages/benefits (fisheries, tourism)
Food	External Strength – Food security/subsistence take improved
Rec	External Strength – Recognition and prestige
Pop	External Strength – Population level, development rate
Cmp	External Strength – High degree of user compliance with regulations
Pln	Management Strength – planning (single or multiple sites/network)
Hum	Management Strength – human resources
Fin	Management Strength – financial resources
Enf	Management Strength – enforcement and surveillance
Mon	Management Strength – monitoring and evaluating MPA effectiveness
Par	Management Strength – public participation and engagement in management action (CBM, co-management)
Trd	Management Strength – building off of traditional practices, cultural integration
Eff	Management Strength – documented effectiveness of management efforts
Inc	Management Strength – increased and/or broader management action needed (e.g., land-based sources of pollution)
Res	Management Strength – scientific research done/valued to support management decisions
Leg	Governance Strength – Legislative/regulatory mandate
Com	Governance Strength – Complementary programs/existing frameworks that communicate and support efforts
Crd	Governance Strength – Partnerships and coordination between government agencies and/or other NGOs
Pol	Governance Strength – Political (legislature, officials) and senior management leadership buy-in and support
Bio	Design Strength – Biological representativeness, diversity of sites
Lim	Design Strength – limited access by users (military site, remote/isolated, etc.)
Cnd	Design Strength – condition of site/habitats/species is excellent or pristine
Lon	Historical Strength – Longevity: experience and knowledge
Sci	Historical Strength – Supporting science/scientific research
Prs	Historical Strength – Presence of existing MPAs (already designated)

Figure 2. Reported 'MPA strengths', by US islands versus FAS.
(See Table 1 for the key to strength category abbreviations)

	pub	edu	per	ecn	food	rec	pop	cmp	pln	hum	fin	enf	mon	par	trd	eff	inc	res	leg	com	crd	pol	bio	lim	cnd	lon	sci	prs
US islands	11	7	8	4	0	2	0	1	6	5	6	5	3	6	6	11	0	3	1	11	11	8	3	2	0	7	1	6
FAS	30	17	17	10	2	1	2	1	3	1	1	2	3	23	9	10	1	1	7	0	11	4	3	0	3	0	0	0

In the US islands alone, the 'complementary programs or existing frameworks that communicate and support management efforts' response ties as the most frequently cited (n=11) perceived strength along with 'public support/buy-in', 'documented effectiveness', and 'partnerships and coordination'. The 'political and senior management leadership buy-in and support' and 'public perception of MPA effectiveness' responses were tied as the fifth most frequently cited MPA strength responses in the US islands (n=8).

In regard to question two, the 112 interviews provided a total of 30 responses regarding perceived 'MPA challenges' within the five response categories (see Table 2). The frequency results for these perceived MPA challenges are shown in Figure 3.

The top five most frequently cited MPA challenges by all respondents are:

(1) 'Human resources', including both the need for more staff and the need for staff with increased capacity or technical skills (n=58; cited by 54% of all respondents);
(2) 'Enforcement and surveillance' (n=46; cited by 43% of all respondents);
(3) 'Financial resources', including funding for project, infrastructure, and equipment costs (n=44; cited by 41% of all respondents);
(4) 'Public education and outreach, awareness raising' (n=42; cited by 39% of all respondents); and
(5) 'Public support/buy-in' (n=33; cited by 31% of all respondents).

These top five most frequently cited MPA challenges represent half (50%) of total responses. It is worth noting that 'human resource needs' is the most frequently cited response of any MPA strength and challenge response provided, being the only response to either question that is cited by a majority (i.e., over half) of all respondents.

Compared to the strengths, there was a substantially higher level of agreement across all respondents regarding the region's perceived MPA challenges. All five of top challenges were cited by more than 30 respondents, as opposed to only the first of the top five perceived MPA strengths. In addition, differences between US Island and FAS responses on perceived challenges overall were far less than with the perceived strengths. There was also clear agreement as to which of the five response categories need the most attention, with 'management' (internal) challenges accounting for over half (57%) of all responses provided to interviewers.

The related 'human' and 'financial' resource responses together account for nearly one-quarter (23%) of all challenge responses cited. Also, similarly to the strengths responses, the three related 'public support', 'public education and outreach', and 'public perception of MPA effectiveness' categories account for one-fifth (19%) of all challenge responses provided by all respondents.

The response rate within both design and historical (contextual) categories was low for both perceived MPA strengths and weaknesses, accounting for only nine and six percent (respectively) of total responses provided.

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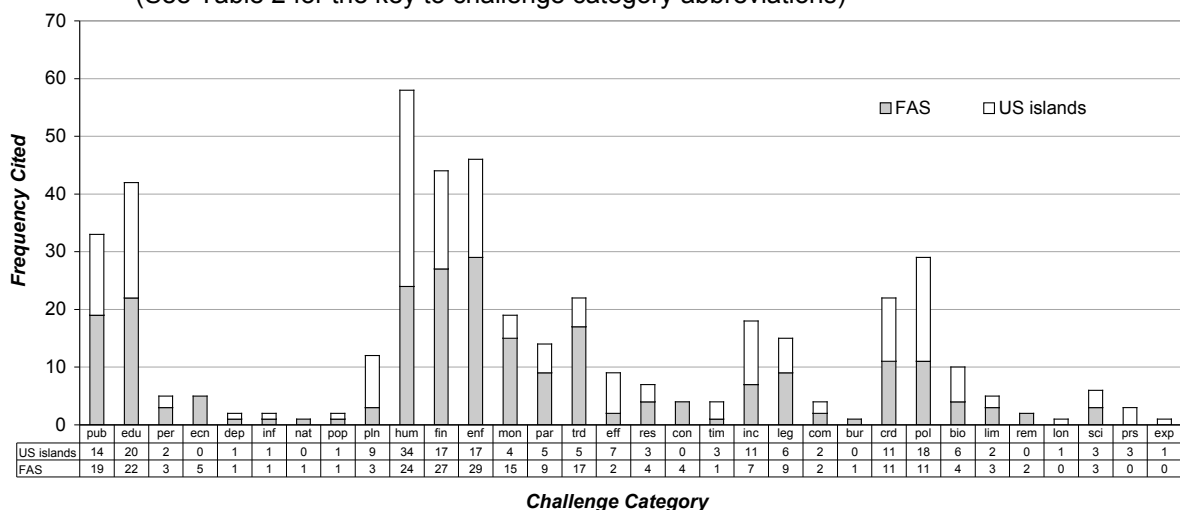
Perceived Needs of Pacific Islands MPAs

The third interview question was designed to follow-up on the perceived challenges identified by the respondent out of question two:

Table 2. A list of the 30 possible 'MPA challenge' responses offered by respondents, by category.

Code	Response category – response offered
Pub	External Challenge – Public support/buy-in (local/community)
Edu	External Challenge – Public education and outreach; awareness raising
Per	External Challenge – Public perception of MPA effectiveness/performance
Ecn	External Challenge – Economic linkages/benefits (fisheries, tourism)
Dep	External Challenge – High level of resource dependency by local residents
Inf	External Challenge – Access to existing information, tools/techniques, and expertise in Pacific Islands
Pop	External Challenge – Population rise, increasing development
Pln	Management Challenge – planning (single or multiple sites/network)
Hum	Management Challenge – human resources
Fin	Management Challenge – financial resources
Enf	Management Challenge – enforcement and surveillance
Mon	Management Challenge – monitoring and evaluating MPA effectiveness
Par	Management Challenge – public participation and engagement in management action (CBM, co-management)
Trd	Management Challenge – building off of traditional practices, cultural integration
Eff	Management Challenge – documented effectiveness of management efforts
Res	Management Challenge – scientific research done/valued to support management decisions
Tim	Management Challenge – timeliness of management action and completion
Inc	Management Challenge – Increased and/or broader management action needed (users, land-based pollution, etc.)
Leg	Governance Challenge – Legislative/regulatory mandate
Com	Governance Challenge – Complementary programs/existing frameworks that communicate and support efforts
Bur	Governance Challenge – Simplify governance process/bureaucracy
Crd	Governance Challenge – Partnerships and coordination between government agencies and/or other NGOs
Pol	Governance Challenge – Political (legislature, officials) and senior management leadership buy-in and support
Bio	Design Challenge – Biological representativeness, diversity of sites
Lim	Design Challenge – limited access by users (military site, remote/isolated, etc.)
Rem	Design Challenge – the physical remoteness or isolation of the areas being managed
Lon	Historical Challenge – Longevity: experience and knowledge
Sci	Historical Challenge – Supporting science/scientific research
Prs	Historical Challenge – Presence of existing MPAs (already designated)
Exp	Historical Challenge – Previous exploitation of resources (overfished)

Figure 3. Reported 'MPA challenges', by US islands versus FAS.
(See Table 2 for the key to challenge category abbreviations)

	pub	edu	per	ecn	dep	inf	nat	pop	pln	hum	fin	enf	mon	par	trd	eff	res	con	tim	inc	leg	com	bur	crd	pol	bio	lim	rem	lon	sci	prs	exp
US islands	14	20	2	0	1	1	0	1	9	34	17	17	4	5	5	7	3	0	3	11	6	2	0	11	18	6	2	0	1	3	3	1
FAS	19	22	3	5	1	1	1	1	3	24	27	29	15	9	17	2	4	4	1	7	9	2	1	11	11	4	3	2	0	3	0	0

Challenge Category

Q3: *"What do you need to overcome these challenges?"*

Similarly to questions one and two, a total of 24 possible 'MPA needs' across five response categories were offered on question three (see Table 3). The frequency with which each 'need' response was provided is shown in Figure 4.

The top five most frequently cited perceived MPA needs across all respondents are:
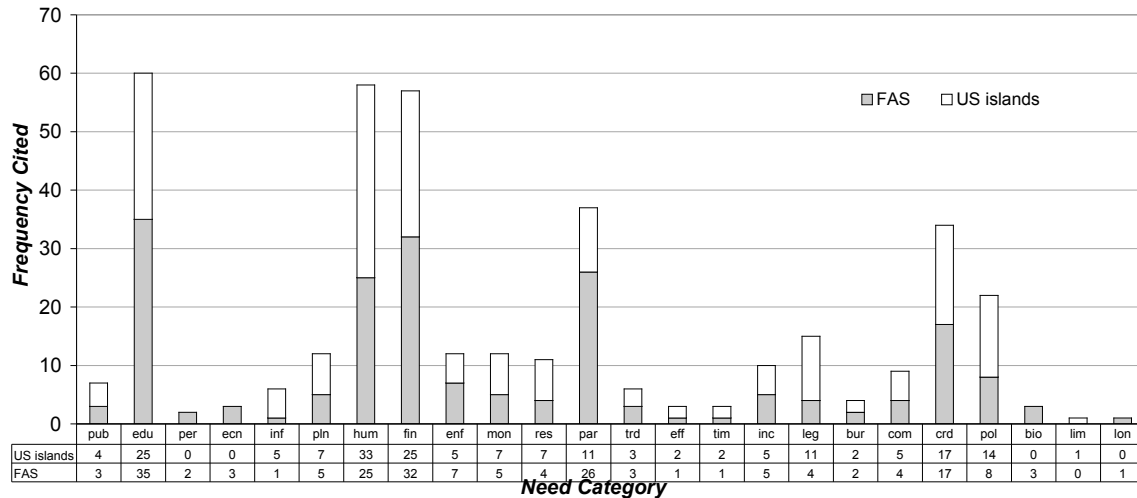
(1) 'Public education and outreach, awareness raising' (n=60; cited by 56% of all respondents);
(2) 'Human resources', including both the need for more staff and the need for staff with increased capacity or technical skills (n=58; cited by 54% of all respondents);
(3) 'Financial resources', including funding for project, infrastructure, and equipment costs (n=57; cited by 53% of all respondents);
(4) 'Public participation and engagement in management activities' (n=37; cited by 35% of all respondents); and
(5) 'Partnerships and coordination between government agencies and/or other non-governmental organizations' (n=34; cited by 32% of all respondents).

These top five most frequently cited perceived 'MPA needs' represent nearly two-thirds (63%) of total responses provided. These results also represent the largest degree of respondent consensus among questions one, two, and three, with the top three 'MPA need' responses each being cited by over half of all respondents. The 'public education and outreach' response to this question is the most commonly cited of any response provided among the three questions.

Table 3. A list of the 24 possible 'MPA need' responses offered by respondents, by category.

Code	Response category – response offered
Pub	External Need – Public support/buy-in (local/community)
Edu	External Need – Public education and outreach; awareness raising
Per	External Need – Public perception of MPA effectiveness/performance
Ecn	External Need – Economic linkages/benefits (fisheries, tourism)
Inf	External Need – Access to existing information, tools/techniques, and expertise in Pacific Islands
Pln	Management Need – planning (single or multiple sites/network)
Hum	Management Need – human resources
Fin	Management Need – financial resources
Enf	Management Need – enforcement and surveillance
Mon	Management Need – monitoring and evaluating MPA effectiveness
Res	Management Need – scientific research done/valued to support management decisions
Par	Management Need – public participation and engagement in management action (CBM, co-management)
Trd	Management Need – building off of traditional practices, cultural integration
Eff	Management Need – documented effectiveness of management efforts
Tim	Management Need – timeliness of management action and completion
Inc	Management Need – Increased and/or broader management action needed (users, land-based pollution, etc.)
Leg	Governance Need – Legislative/regulatory mandate
Bur	Governance Need – Simplify governance process/bureaucracy
Com	Governance Need – Complementary programs/existing frameworks that communicate and support efforts
Crd	Governance Need – Partnerships and coordination between government agencies and/or other NGOs
Pol	Governance Need – Political (legislature, officials) and senior management leadership buy-in and support
Bio	Design Need – Biological representativeness, diversity of sites
Lim	Design Need – limited access by users (military site, remote/isolated, etc.)
Lon	Historical Need – Longevity: experience and knowledge

Figure 4. Reported 'MPA needs', by US islands versus FAS.
(See Table 3 for the key to need category abbreviations)

Need Category	pub	edu	per	ecn	inf	pln	hum	fin	enf	mon	res	par	trd	eff	tim	inc	leg	bur	com	crd	pol	bio	lim	lon
US islands	4	25	0	0	5	7	33	25	5	7	7	11	3	2	2	5	11	2	5	17	14	0	1	0
FAS	3	35	2	3	1	5	25	32	7	5	4	26	3	1	1	5	4	2	4	17	8	3	0	1

As was expected, there is a high degree of similarity between the reported MPA perceived 'needs' and 'challenges' results, with the top three 'MPA need' responses also being cited within the top five 'MPA challenges' responses. Also, similarly to the 'MPA challenges' results, the related "human" and "financial" resource responses together contribute the most to total MPA 'needs' responses provided, together accounting for nearly one-third (30%) of all 'needs' responses cited. Finally, as with the 'MPA challenges' results, the total reported 'need' responses that fall under the internal/management response category account for the majority (57%) of all cited 'needs'.

Unlike both the strengths and challenges results, not only does the 'public support/buy-in' response not fall within in the top five 'needs' responses provided to interviewers, but overall it scores as one of the least frequently perceived MPA needs. This is in direct contrast to the challenges results.

There is a substantial degree of agreement between US island and FAS respondents regarding the top five perceived 'MPA needs' in the Pacific Islands, the highest level of agreement of questions one, two, and three.

[Text to be inserted here relating to the statistical strength of relationships between mangers vs. non-mangers and need responses]

Perceived Benefits of Increased Access to Other Pacific Islands MPAs

The fourth interview question was designed to address the potential, perceived benefits of increased access to other Pacific Islands MPAs:

Q4: *"Would access to skills, approaches, experiences, and lessons of other MPAs benefit your MPA system? If so, which benefits specifically would potentially be of most use?*

Nearly all of the respondents (94%) replied positively to the first part of this question (i.e., "yes"), with only three respondents replying in the negative (i.e., "no"). Four respondents, all in US

islands, replied that they "did not know" whether or not there would be any potential benefits from increased access to other MPAs in the region.

From the 112 interviews conducted, a total of 8 possible 'potential benefit' responses were offered by all respondents to question four (see Table 4). The frequency with which each 'potential benefit' response was offered is shown in Figure 5.

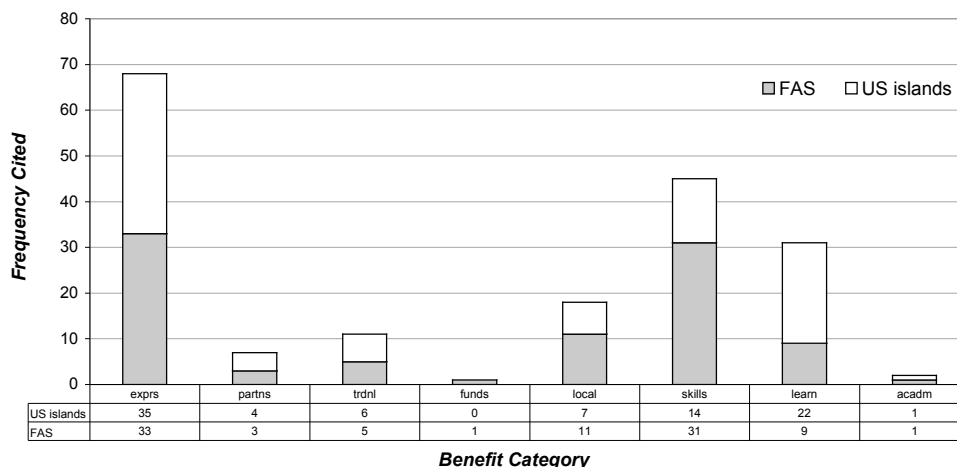The top three most frequently cited 'potential benefit' responses across all respondents are:

(1) Benefiting through access to others' experiences (n=68; cited by 64% of all respondents);
(2) Accessing expertise and being trained in new skills (n=45; cited by 42% of all respondents); and
(3) Engagement in active and formal learning activities (n=31; cited by 29% of all respondents).

These three, related responses account for four-fifths (79%) of all responses provided.

Table 4. A list of the 8 possible 'potential benefit' responses offered by respondents.

Code	Response offered
Exprs	Benefiting through access to others' experiences (successes, failures, lessons, etc.); includes peer-to-peer, MPA site-to-site, island-to-island level interactions.
Partns	Benefiting from regular access to (and working with) new and/or diverse partner organizations
Trdnl	Accessing how others are effectively incorporating traditional management and integrating cultural practices into contemporary ("western"-style) MPA management practices
Funds	Shared and/or new funding sources as a result of access to and working with other MPA sites with such resources
Local	Benefit from increased access to "local" (i.e., regional, Pacific Islands-based) expertise, knowledge, and community participation in MPA management
Skills	Benefit of accessing outside expertise to be trained in new skills to build own capacity; also, sharing own expertise/skills with others in region
Learn	Engagement in active and formal (i.e., deliberate, structured, and systematic) learning activities (e.g., regional research experiments) and access to new scientific information, research findings, and knowledge
Acadm	Benefit of strengthening local academic institutions and curricula to build long-term management capacity

Figure 5. Reported 'potenital benefits' of increased access to other MPAs in region, by US islands versus FAS. (See Table 4 for the key to need category abbreviations)

	exprs	partns	trdnl	funds	local	skills	learn	acadm
US islands	35	4	6	0	7	14	22	1
FAS	33	3	5	1	11	31	9	1

Benefit Category

US island respondents cited benefiting from access to others' experiences as frequently as FAS respondents. FAS respondents cited accessing expertise and skills more than US island respondents, and US island respondents cited formal learning more than FAS respondents. The other five possible responses offered were not frequently cited.

[Text to be inserted here relating to the statistical strength of relationships between mangers vs. non-mangers and need responses]

Assumed Need for Strengthened Academic Capacity

The fifth interview question was designed to gauge the extent to which respondents believe that strengthened academic capacity relating to MPA management would be beneficial:

Q5: *"To what extent, if any, do you think that strengthening regional academic capacity to offer MPA management program would benefit MPA effectiveness in your State/Territory?"*

As the only closed question in the interview, a four-point scale was offered to guide respondent responses to this question, as follows:

3 = *very helpful*   2 = *somewhat helpful*   1 = *not helpful*   0 = *I do not know*

Across the 112 respondents, the average response to this questions was between "somewhat helpful" and "very helpful", leaning toward "very helpful" (average = 2.75). Whereas all FAS respondents replied "very helpful" (average = 3.00), US island respondents are less optimistic, split evenly between "somewhat helpful" and "very helpful" (average = 2.50). Of the four US island jurisdictions, respondents from American Samoa and Guam are more optimistic, typically responding "very helpful" (average = 2.77 and 2.80, respectively) to the question, whereas respondents from CNMI and Hawaii are more guarded, leaning toward "somewhat helpful" (average = 2.21 and 2.23, respectively) as a typical response.

Respondents were subsequently asked to expand on any "very helpful" or "somewhat helpful" responses. A wide range of suggestions and responses were offered[2]. The highest utility of strengthened regional academic capacity is largely viewed as a vehicle to more deliberately and effectively incorporate students into MPA management programs so as to be a source of increased current and future human capacity. It was also noted by several respondents that local schools need to more deliberately serve as a location for local islanders to be trained in specific sets of MPA management, administrative, and scientific skills in order to build local, long-term, and sustainable human resource capacity.

There were concerns in this approach, however, notably in that as a result of such training and increased academic offerings, the islands could loose newly-created human capacity to job openings in other regions or the US mainland, particularly if the islands are unable to provide ample, consistent opportunities for trained students to secure long-term, stable, and equitably-paying management positions locally. Such "brain drain" is seen as a chronic condition that would be difficult to address simply through improved academic offerings and increased regional MPA coordination.

Perceived Utility of Increased Pacific Islands MPA Coordination

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[2] A summary list of these responses will be provided to and discussed by Pacific Islands representatives during a Pacific Islands MPA Community Workshop to be held in Guam in late August 2005.

The sixth interview question was designed to identify whether or not respondents believe that increased regional MPA coordination would be useful, and if so, how:

Q6: *"Do you think that coordination of MPA efforts across the Pacific Islands region would be useful for your MPA? If so, how?"*

Nearly all of the respondents (94%) replied "yes" to the first part of this question, with only two respondents (2%; one from Hawaii and one from FSM) replying "no". Five respondents (4%), all from US islands, replied that they did not know whether or not increased coordination would be of use to their MPA site(s).

Regarding the second part of this question, a litany of specific suggestions were offered as to what uses could result from increased coordination of MPA efforts in the region[3]. While responses varied widely, similarly to the results out of question four, by far the most frequently cited response offered (n=69; cited by 62% of all respondents) relates to increased sharing of experiences, information, and knowledge, particularly with respect to "what works and what doesn't work" in terms of MPA management efforts. Other commonly cited responses include sharing skills and accessing training opportunities, improving funding to the region and sharing financial resources, and promoting the region's MPA capacity, experience, and knowledge. A few dozen respondents simply cited "increased coordination" as a benefit in and of itself (despite the redundancy to the original question).

Outputs of the Final Three Questions

Three final open-ended questions were posed to respondents during their interviews:

Q7: *"What type of US federal government assistance has been of most value to your MPA system? Which assistance did not work?"*

Q8: *"Do you all have a management plan for the site? If no, what else do you need?"*

Q9: *"Are there any specific MPA tools, experts, or experiences of other sites that you would like your MPA system to have access to?"*

The responses offered to question seven were not particularly useful (a limited set of previously known responses), and nearly all respondents tended only to address the first half of the question.

Question eight was originally intended to primarily as a method to gain background knowledge at specific sites, but in practice was not found to be a particularly useful method to do so. As a result, the question was asked infrequently and inconsistently by interviewers, based largely on their knowledge of the MPA, the island location, and the respondent. As a consequence, an sparse and incomplete amount of information was collected across all respondents. Where responses were provided, they served merely to validate or complete interviewer knowledge.

Finally, the litany of responses provided to question nine[3] were largely redundant to the responses previously offered to questions four and six, and likely influenced by those prior responses. As a consequence, the results unfortunately did not provide any new, significant insights.

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[3] A summary list of these responses will be provided to and discussed by Pacific Islands representatives during a Pacific Islands MPA Community Workshop to be held in Guam in late August 2005.

DISCUSSION

The outreach interview results offer MPA and marine resource managers in the Pacific Islands several points of relevant consideration in their contemplation of forming a Pacific Islands MPA Community, and in structuring possible activities for such a Community.

The results on the most frequently perceived MPA strengths in the US islands suggest a greater focus or higher level of attention on the governance aspects of MPA management in the US islands than in FAS. This could be explained due to the higher reliance on a centralized MPA management approach for MPAs in the US islands, as opposed to local or community-based approach.

The greater level of agreement between US Island versus FAS perceptions on MPA challenges, compared to strengths, suggests that there are at least some shared issues or similar concerns that are presently challenging MPA managers across the region that could be useful to be addressed, regardless of the national jurisdiction. This agreement also could indicate a greater level of regional attention and awareness of MPA issues, rather than successes. The clear consensus regarding an overall regional focus on management challenges (as opposed to public or governance challenges) could be explained by a greater level of regular attention and evaluation being given to addressing internal needs, rather than external ones.

Interestingly, 'public support/buy-in' and 'public education and outreach' were both cited within the top five perceived MPA strengths and challenges. This overlap may indicate a large degree of overall attention and regional emphasis or awareness being placed on the need for effective public engagement relating to building external support for MPA management. It may also signal the need for more in-depth discussion, investigation, and work on the topic of public engagement in order to provide a clearer understanding between with aspects of this topic are perceived to be strengths versus weaknesses in the region.

Although the strong level of US island and FAS respondent agreement between perceived MPA weaknesses and needs was originally predicted, the fact that the results illustrate this agreement improves our confidence in the results provided. The overlapping results within the top MPA challenges and needs offer a strong rationale for consideration of a management-focused (i.e., internal) capacity-building effort through a potential Pacific Islands MPA Community, and suggest at least two specific areas of programmatic attention that would be useful to address existing MPA capacity challenges in the region: improving public education and outreach efforts, and addressing human and financial resources. In providing specific suggestions in these areas, respondents frequently noted the need to improve MPA staff skills in enforcement, monitoring and effectiveness evaluation, management planning, grant writing, and the use of the social sciences in decision making. Regarding public education, most respondents noted the need for the development or adaptation of outreach tools and campaigns to raise the awareness of the general public and with specific government decision makers on the facts and utility of MPAs, including both their underlying science and globally demonstrated effectiveness.

The results of questions one through three (i.e., perceived strengths, challenges, and needs) also reveal an in-depth look the differences and similarities among MPA managers regarding specific strengths, challenges and needs. More specifically, the strengths display clear differences between US islands and FAS. They clearly demonstrate the fact that US islands and FAS situations are complementary, and thus suggest the need for deliberate and continuous integration and partnership. This finding highlights the need for an explicit vision of a multi-national,

holistic Pacific region approach to a regional MPA coordination, in which opportunities are created for peer to peer learning and experience sharing.

Next, the results from question four suggest that there is clear consensus by managers that increased access to other MPAs in the region would be beneficial to respondents, particularly with respect to accessing one another's MPA management experiences and knowledge. Likewise, the results to question five show that there is a clearly expressed and agreed-upon overall belief and interest by regional MPA managers and stakeholders that increasing the capacity of academic institutions in the region to provide MPA management programs would be useful for management purposes.

Finally, the results generated out of question six indicates a clear, expressed interest in the development of a 'community' that promotes coordination and collaboration of MPA efforts regionally. This is also supported out of the results to question four, where respondents note their strong interest in accessing experiences, skills, and lessons/knowledge through increased peer-to-peer, site-to-site, and island-to-island interaction and coordination on MPA efforts and capacity. These results offer a strong rationale in the consideration of initiating a Pacific Islands MPA Community, assuming that other alternatives do not exist already. Based on the results of the interviews, such a 'community' would clearly need to serve as a forum for knowledge and information exchange while also facilitating region-wide trainings and other skills-building efforts around a set of specified, cross-cutting MPA challenges and issues.

CONCLUSION

The results of the outreach interview completed to date provide several possible topics and avenues of discussion for regional MPA managers and support professionals[4]. Should such discussions lead to the proposed initiation of a Pacific Islands MPA Community, regional MPA managers and other key stakeholders will need to collectively design a future program of prioritized activities to address the challenges and needs illustrated through the interview results, while taking advantage of the existing regional strengths and capacity. It is hoped that these results can and will inform and guide Pacific Island MPA managers in their consideration and decision as to whether or not a Pacific Islands MPA Community is to be created to improve the effectiveness of MPA management in the region.

While interview results confirm the breadth of interest and potential that a Pacific Islands MPA Community could hold for the region, it is important to recognize that it will not solve all of the capacity needs and issues relating to regional MPA management. While some of the needs identified by respondents potentially could be addressed through increased regional coordination, sharing of skills and expertise, and focused capacity building exercises, clearly the creation of Pacific Islands MPA Community will not provide all the necessary solutions.

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[4] Some discussion of these results is to occur among Pacific Islands representatives between August 28 through 31, 2005 at a workshop to be held in Guam regarding the potential initiation of a Pacific Islands MPA Community.