



Protected Areas Network



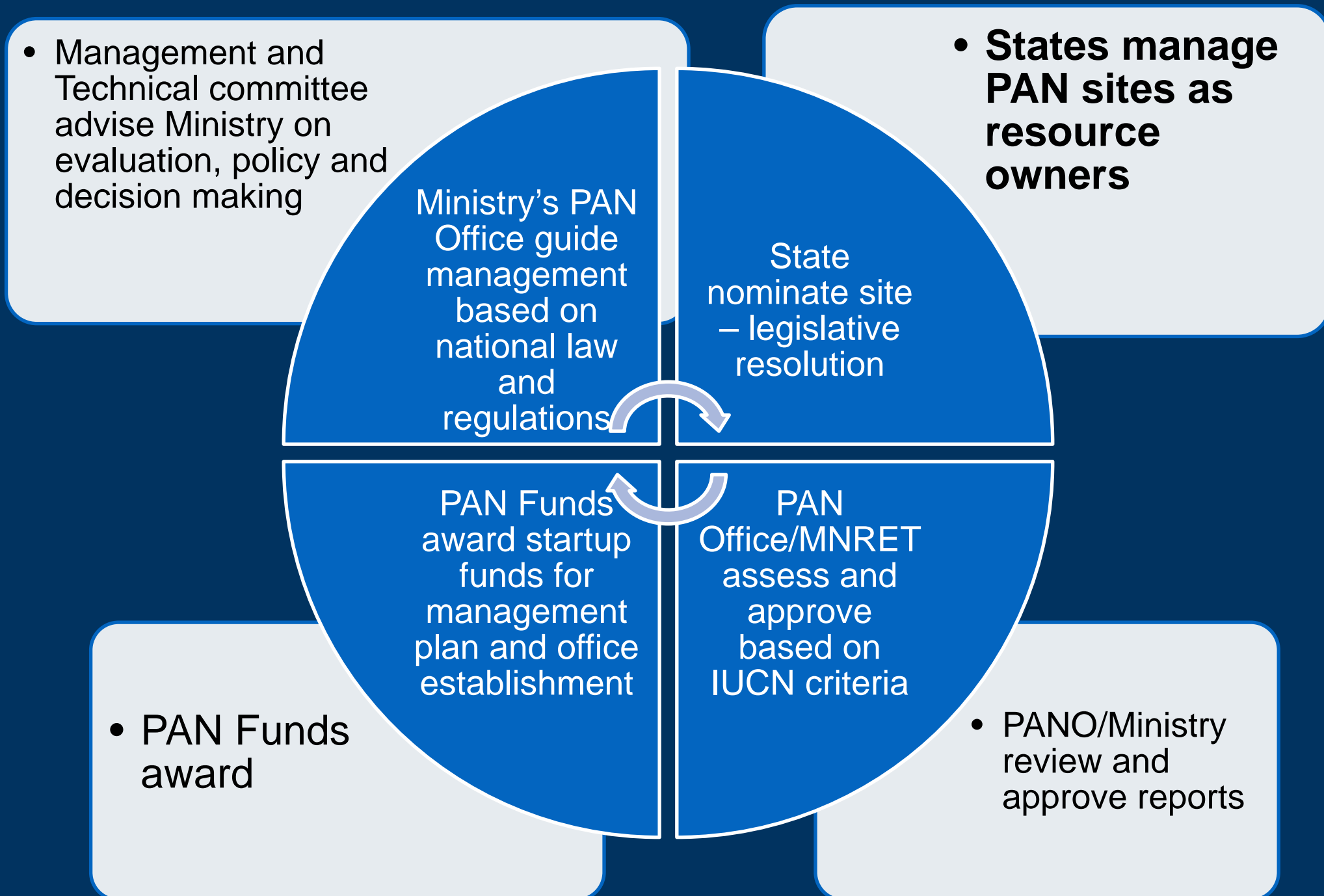
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Background and History

- Conservation is a Palauan value
- 2003 – PAN Act (RPPL 6-39)
- 2006 – Micronesia Challenge and PAN Funds
- 2008 – PAN Funds (RPPL 7-42)
- 2009 – Green Fee
- 2010 – Ngardok Nature Reserve of Melekeok State becomes first PAN Site
- 2012 – PAN Funds Board
- 2017 – Ngatpang becomes the 15th state to establish a PAN Site

“Msebechii a kelel a klukuk!”
(Consider tomorrow’s meal)

PAN Process



1. Management Committee is made up of governors, traditional leaders and Palau Public Land Authority
2. Technical Committee is made up technical experts from government agencies and NGOs
3. PAN Funds Board is made up of individuals from NGOs, private sectors and two from the national government as ex-officio members – the Minister of Finance and the Minister of Natural Resources, Environment and Tourism.

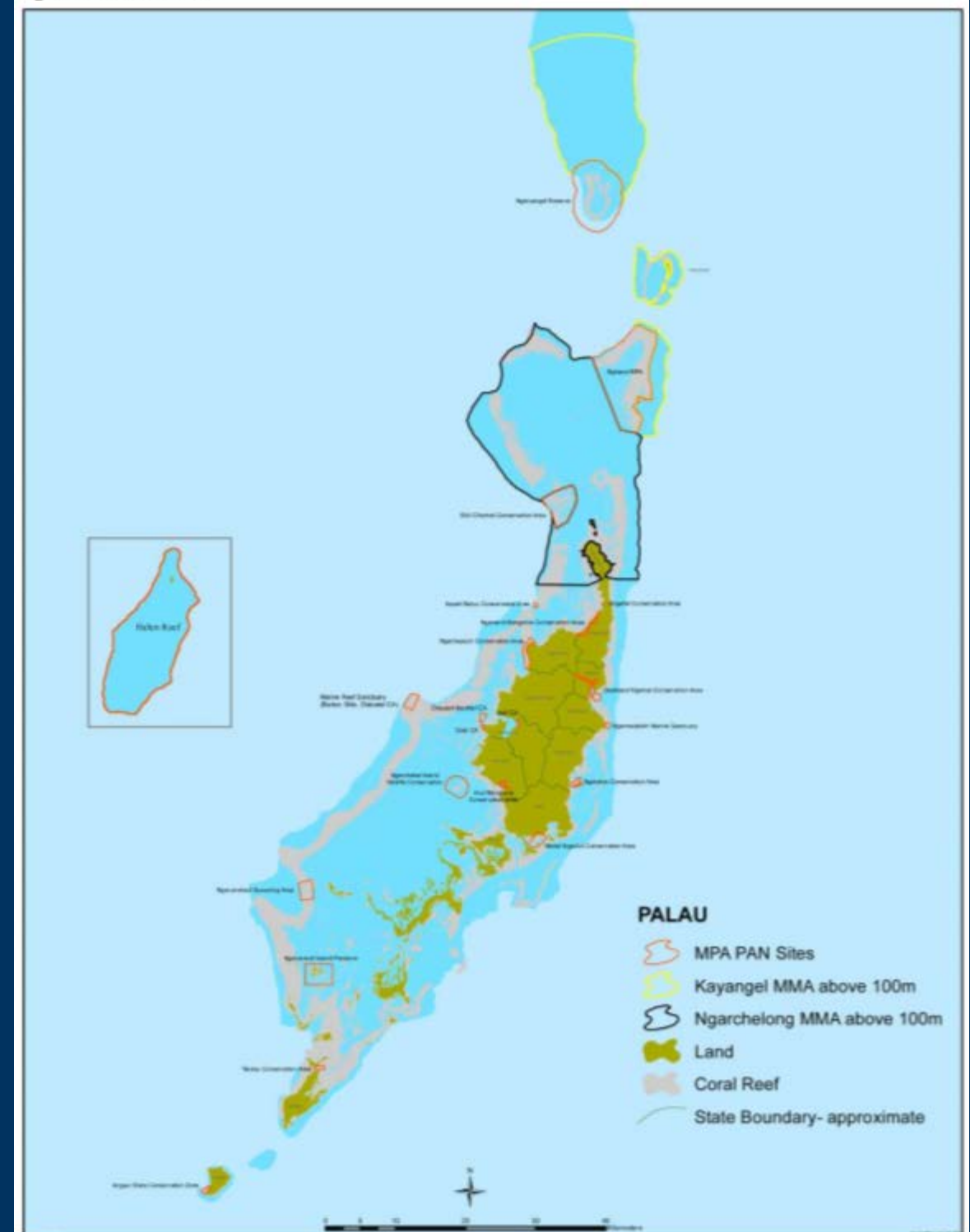
Progress

Table 1. PAN Sites by State

State	PAN Site	Nearshore marine PAN Sites (km ²)*	Terrestrial PAN Sites (km ²)	TOTAL square area of PAN Site (km ²)	IUCN Category (if assigned)**
Aimeliik	Imul	0.8	0.0	0.8	III
Aimeliik	Marine Reef Sanctuary	2.8	0.0	2.8	II
Aimeliik	Ngerchebel	0.3	0.0	0.3	VI
Aimeliik	Ngerderar Watershed Reserve	0.0	3.8	3.8	VI
Aimeliik Subtotal		3.9	3.8	7.7	
Airai	Medal Ngediull Conservation Area	3.2	0.1	3.3	II
Airai Subtotal		3.2	0.1	3.3	
Angaur	Angaur Conservation Area	0.7	0.0	0.7	IV
Angaur Subtotal		0.7	0.0	0.7	
Hatohobei	Helen Reef Conservation Area	162.0	1.0	163.0	Ia
Hatohobei Subtotal		162.0	1.0	163.0	
Kayangel	Territorial Waters	331.0	0.0	331.0	Ia
Kayangel	Ngkesol	81.0	0.0	81.0	Ia
Kayangel	Ngaruangel Marine Reserve	30.0	5.0	35.0	Ib
Kayangel	Ngerusebek	0.000	0.003	0.003	VI
Kayangel	Chermall	0.000	0.003	0.003	VI
Kayangel Subtotal		442.0	5.0	447.0	
Koror	Ngerukewid Islands Wildlife Preserve	3.3	7.7	11.0	Ib
Koror	Ngerumekaol Conservation Area	2.1	0.0	2.1	III
Koror Subtotal		5.4	7.7	13.1	
Melekeok	Ngardok Nature Reserve	0.0	5.0	5.0	
Melekeok Subtotal		0.0	5.0	5.0	
Ngaraard	Ngaraard Mangrove Conservation Area	2.0	0.0	2.0	II
Ngaraard	Ungellel Conservation Area	0.03	0.0	0.03	VI
Ngaraard	Diong Ra Ngerchokl Conservation Area	0.0	0.9	0.9	
Ngaraard	Ngerkall Lake Conservation Area	0.0	2.2	2.2	
Ngaraard Subtotal		3.0	3.1	6.1	
Ngarchelong	Ngarchelong Marine Managed Area	521.0	2.0	523.0	Ia
Ngarchelong	Ebiil Conservation Area	19.1	0.0	19.1	Ib
Ngarchelong Subtotal		540.1	2.0	542.1	
Ngardmau	Ngermasech Marine Protected Area	3.3	0.0	3.3	II
Ngardmau	IleyaklBeluu Reef	0.6	0.0	0.6	IV
Ngardmau	Ngerchelchuu Ridge Conservation Area	0.0	0.3	0.3	
Ngardmau	Medal-A-Ieychad Waterfall "Taki" CA	0.0	6.1	6.1	
Ngardmau Subtotal		3.9	6.4	10.3	
Ngaremlengui	Ngeremeskang Bird Sanctuary	0.0	1.5	1.5	
Ngaremlengui Subtotal		0.0	1.5	1.5	
Ngatpang	Oreusol Ibuchel	0.8	0.0	0.8	III
Ngatpang	Iuul Conservation Area	0.4	0.0	0.4	VI
Ngatpang	Crab Conservation Area	0.3	0.0	0.3	VI
Ngatpang Subtotal		1.5	0.0	1.5	
Ngchesar	Ngelukes Marine Protected Area	0.5	0.0	0.5	IV
Ngchesar	Mesekelat Watershed Reserve	0.0	3.8	3.8	
Ngchesar Subtotal		0.5	3.8	4.3	
Ngiwal	Ngemai Conservation Area	1.0	0.0	1.0	III
Ngiwal	Olsolkesol, Ngerbekuu River	0.0	1.1	1.1	
Ngiwal Subtotal		1.0	1.1	2.1	
Peleliu	Teluleu Conservation Area	0.8	0.0	0.8	III
Peleliu Subtotal		0.8	0.0	0.8	
Total Area - PAN Sites		1167.4	40.5	1207.93	
Total Marine or Terrestrial Area - Palau		2868	410		
Total Area - PAN Sites		41%	10%		

*Includes mangroves
**As assigned by individual Management Plans

Figure 1. Marine PAN Sites

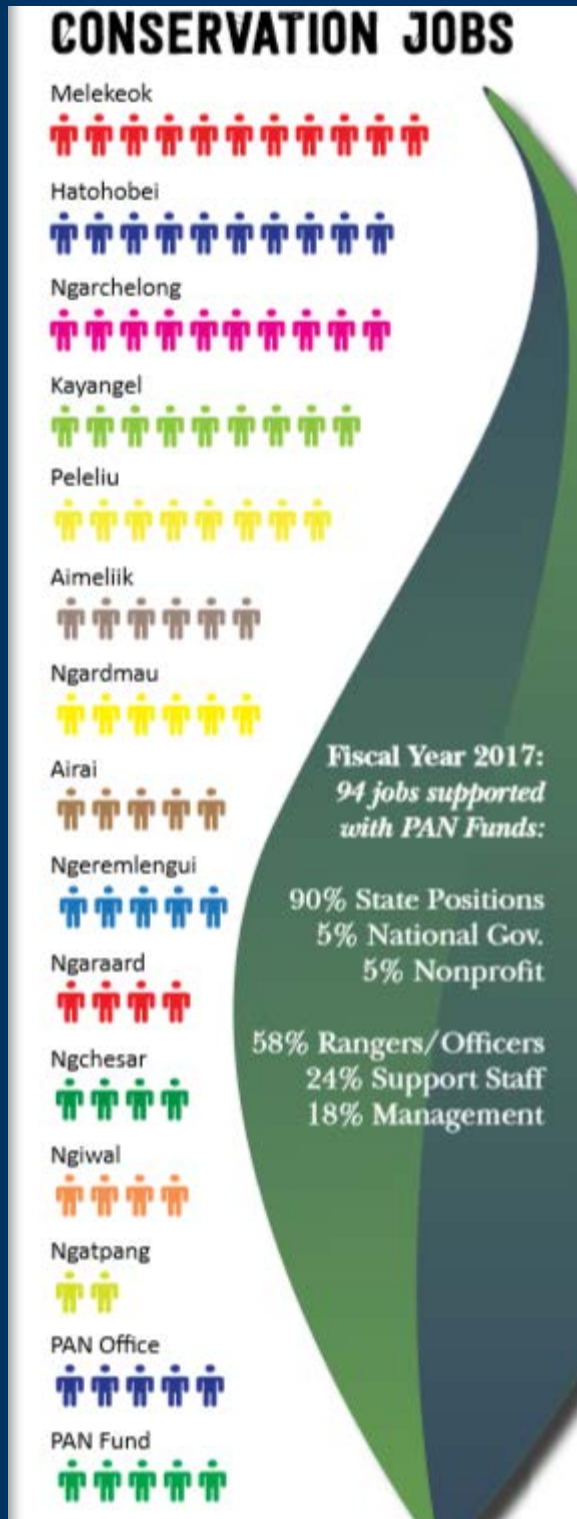


41% of total marine area
10% of total terrestrial area

Success Stories

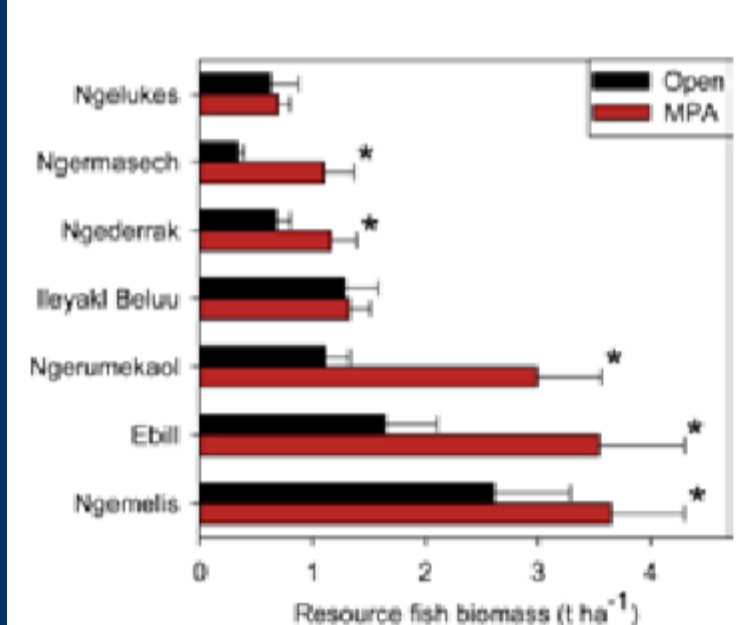
465 sq mi = 1204 sq km

35 PAN SITES*
465 SQUARE MILES PROTECTED IN PAN
41% OF TOTAL NEAR-SHORE MARINE AREA
10% OF PALAU'S TOTAL TERRESTRIAL AREA
*Melekeok's Ngermedelim will join PAN in 2018.

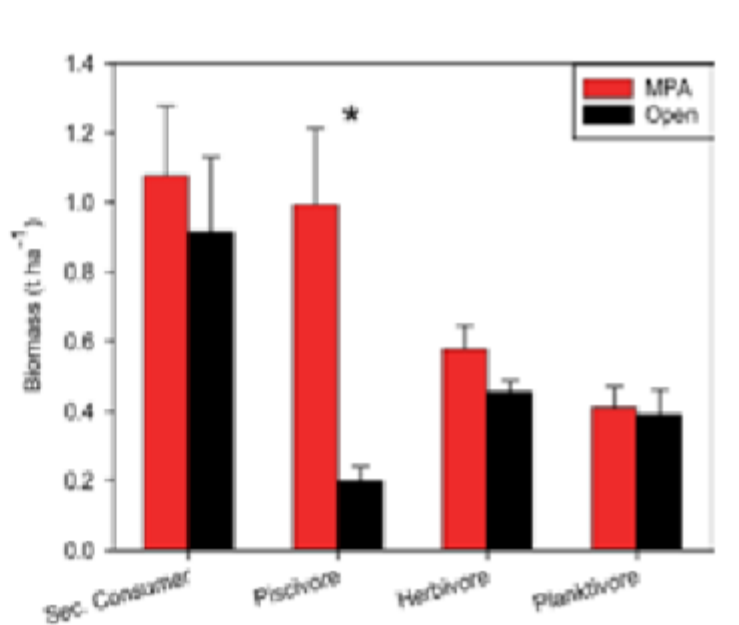


HIGHER FISH BIOMASS

A 2017 study¹ found that resource fish biomass was (2x) higher in PAN MPAs than in adjacent non-protected areas, and top predator biomass was five times (5x) higher than in adjacent areas. Study author Dr. Yimnang Golbuu:² “The state governments and local communities that manage these protected areas, the [PAN] Office and PAN Fund and other partners that support these protected areas should be congratulated for their success. By working together, we have demonstrated the value of protected areas to the world and the scientific community.”



Comparison of resource fish biomass outside (black) and inside (red) MPAs.¹

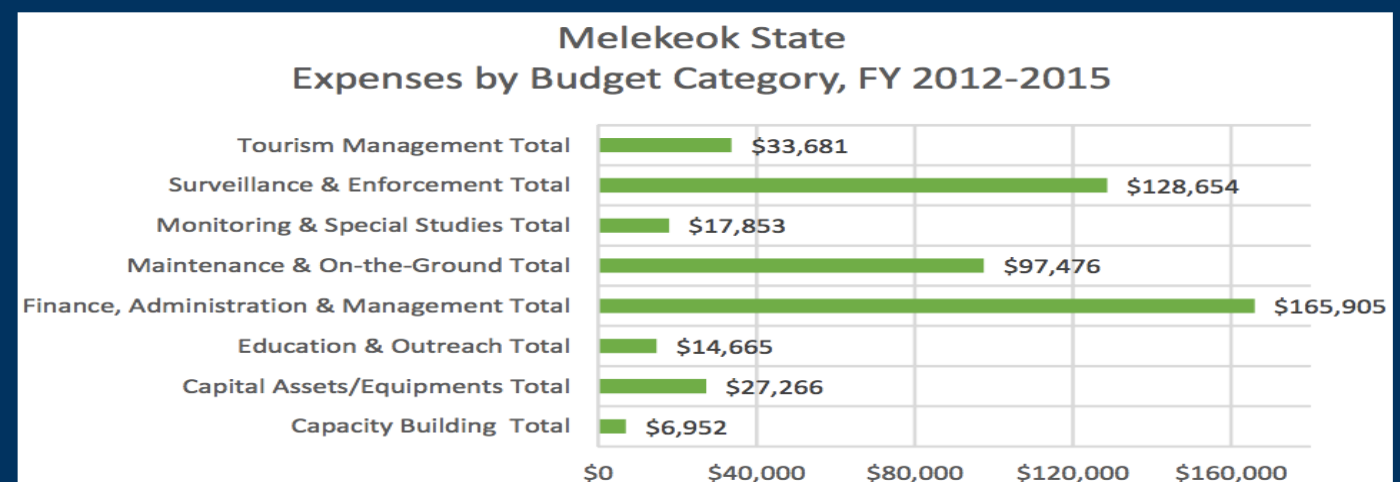


Biomass by fish trophic groups and management (MPAs (red) and open to fishing (black)).²

Site Profile: Melekeok State

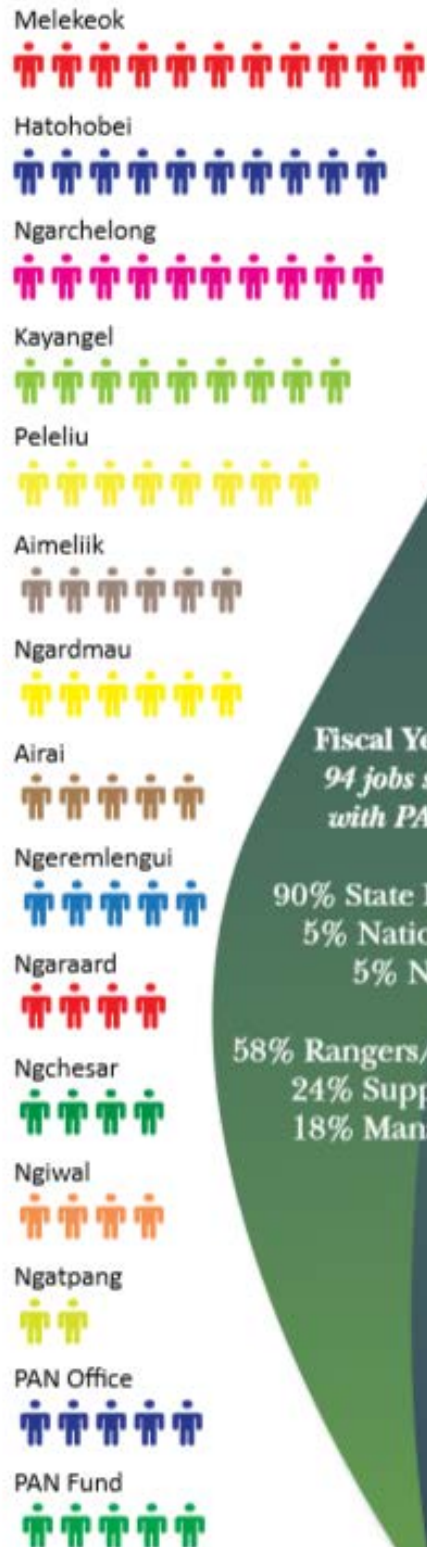
	Average PAME Score	Rating
PAME categories assessing Natural Resources		
Biophysical	50%	Poor
Conservation effect	86%	Good
Ecosystem services	0%	Poor
PAME categories assessing Infrastructure		
Enforcement	72%	Adequate
Finance	33%	Poor
Infrastructure/equip	67%	Adequate
Legal	61%	Poor
Planning	94%	Good
Staffing	92%	Good
PAME categories assessing Community Effects		
Socio-economic	75%	Adequate
Stakeholder engagement	76%	Fair
Traditional knowledge	100%	Effective
Overall Average	75%	Adequate

	Ngardok Nature Reserve
Year into PAN	2008
Year Established	1997
Total size (km ²)	5.0
Percent Marine/Terrestrial	100% Terrestrial
<p>Features: Wetland of International Significance (Ramsar Convention); Largest freshwater lake in Micronesia; Freshwater river, streams, and habitats; Watershed, Water source for Capitol; Terrestrial and forest biodiversity; Endangered species, particularly saltwater crocodiles; Cultural, tourist, and educational sites, including trail testing and development; Research sites, particularly for soil restoration and water quality. Management: No-take, restricted entry with zones; Active restoration sites and visitor sites. Active research sites.</p>	

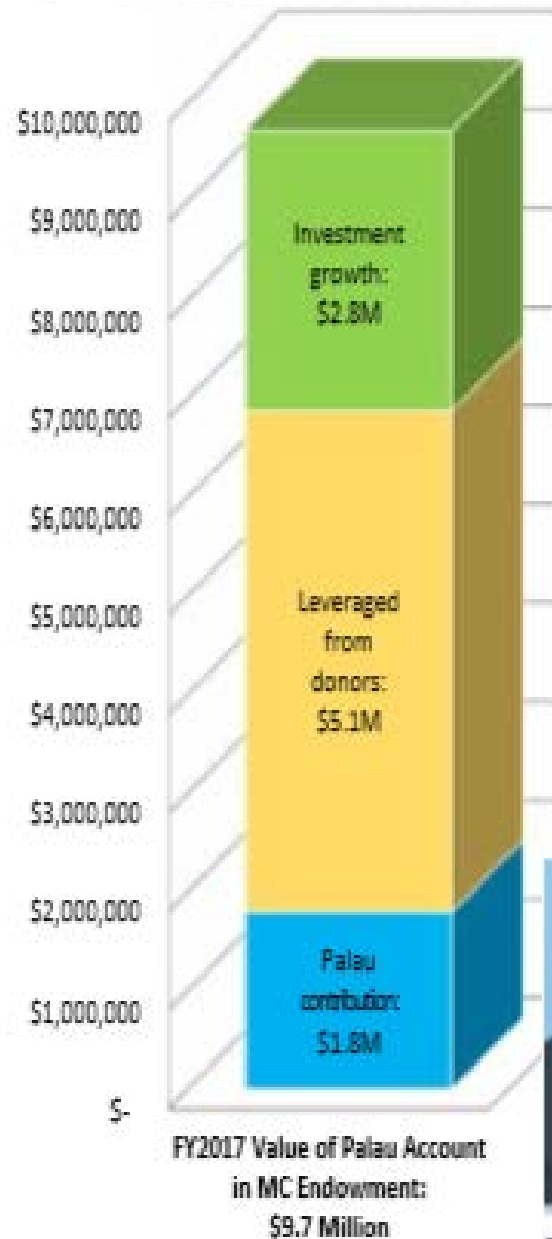


Challenges, Lessons & Opportunities

CONSERVATION JOBS



INCREASING SUSTAINABILITY

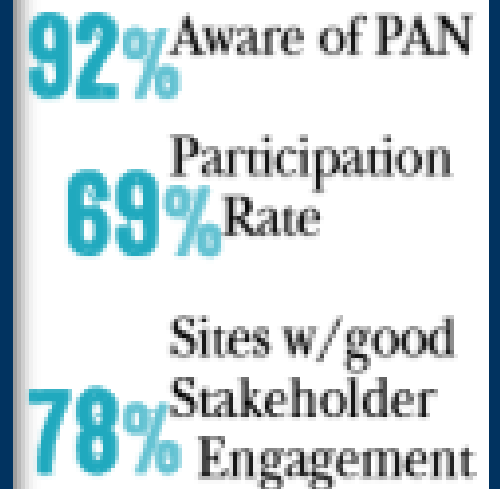


Funding, Legislation, or Resources required to Carry out PAN objectives

The PAN Fund feels that the \$2 million cap on Green Fees going to the PAN Fund is limiting the ability of the PAN to achieve all of its objectives. The PAN Fund is calling for review of the \$2M cap:

1. The \$2 million cap is limiting the PAN Fund's ability to maximize investment returns. This equates to significant missed opportunity.
2. The cap, combined with the multiple other requirements for the Green Fees (e.g. PANF, PANO, Reserves, Endowment) mean that the PAN Fund cannot invest more in States and thus achieve the immediate goal of the PAN, to protect Palau's natural resources.
 - This has limited the ability to fund activities in Koror.
 - The PAN Fund has never been able to fund any state at 100% of

GROWING SUPPORT



Note: Local authorities maintain ownership of sites and local capacity is built through PAN

Next Steps



- Capacity development for PAN Office
- Institutionalizing training for site managers
- Sustainable financing mechanisms for PAN site



Sulang!

