Thailand's Marine and Coastal Protected Area Management Effectiveness Evaluation

Mu Koh Similan National Park, Phang-Nga

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Evaluating the management effectiveness of Thailand's marine and coastal protected areas

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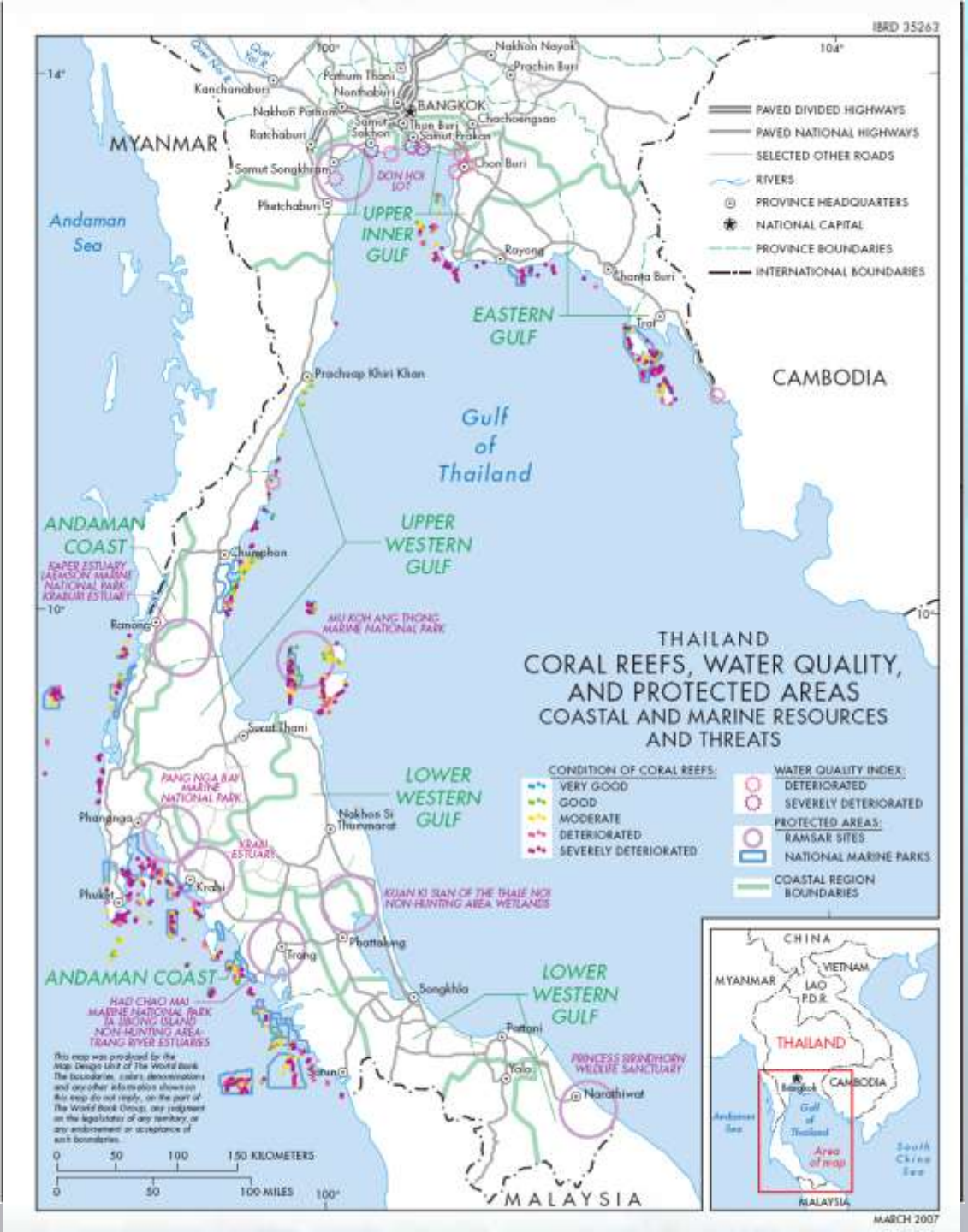
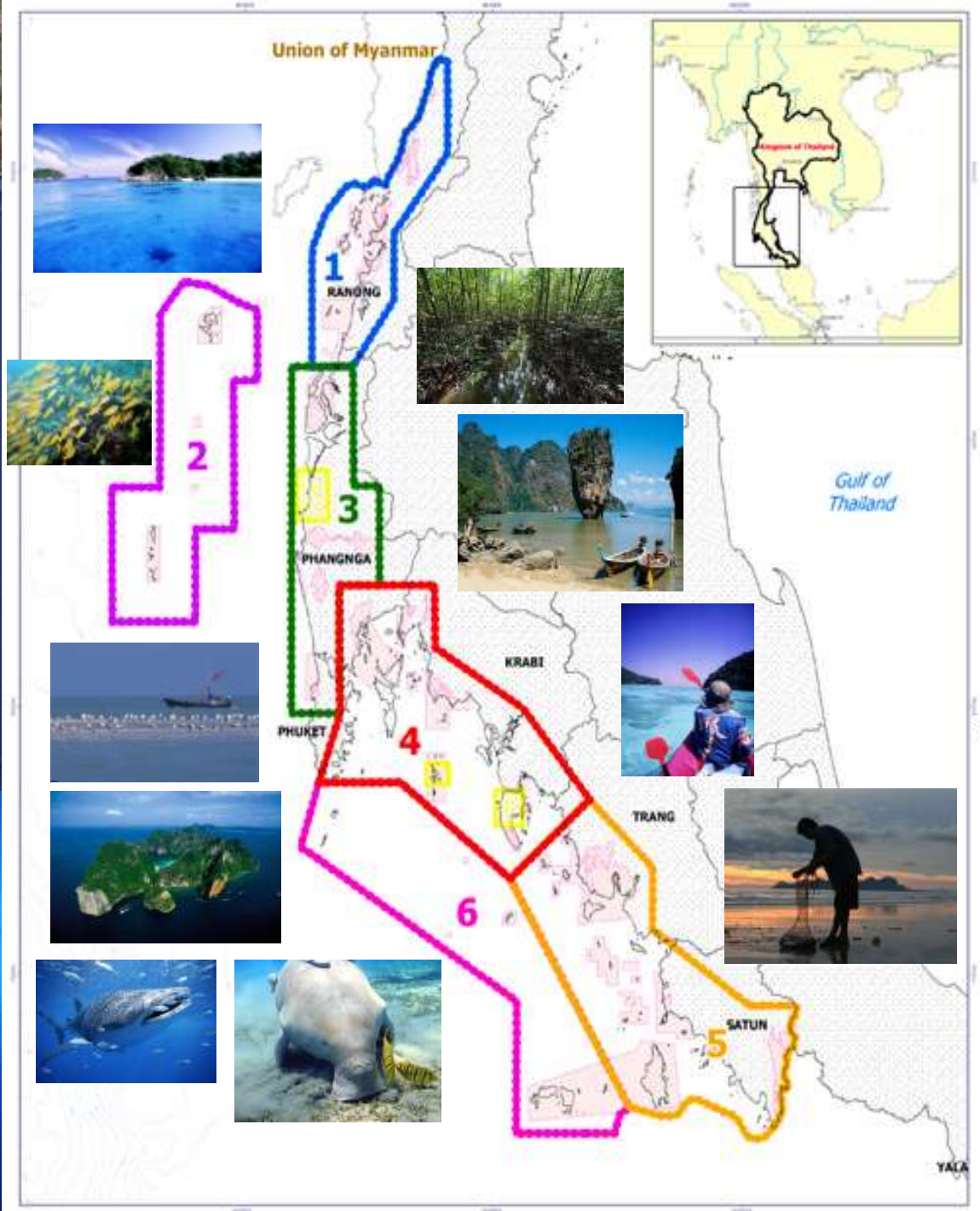


Thailand's MPAs overview

- **28 MPAs established**
- **Solid legislation framework exists**

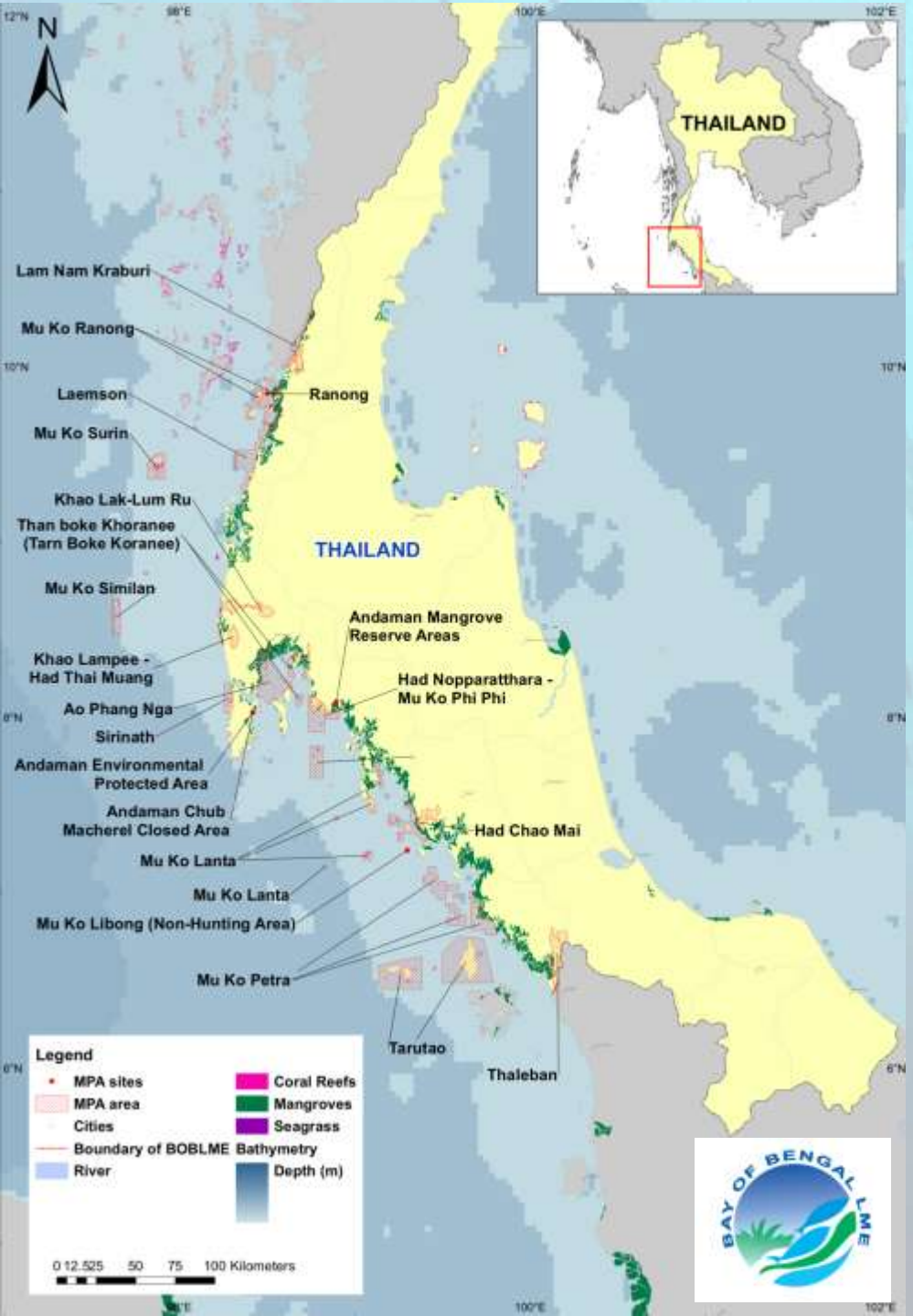
Challenges:

- Resource overexploitation
- Tourism/development pressures
- Pollution
- Overlapping jurisdiction
- **MPAs effectiveness unknown**



Andaman Bioregion

- Unique confluence of many biogeographic region
- Diverse ecosystems with 6 distinct ecoregions
- World Heritage Nomination
- **Global Biodiversity hotspot**
- **Important livelihoods**



Thailand's Andaman Bioregion

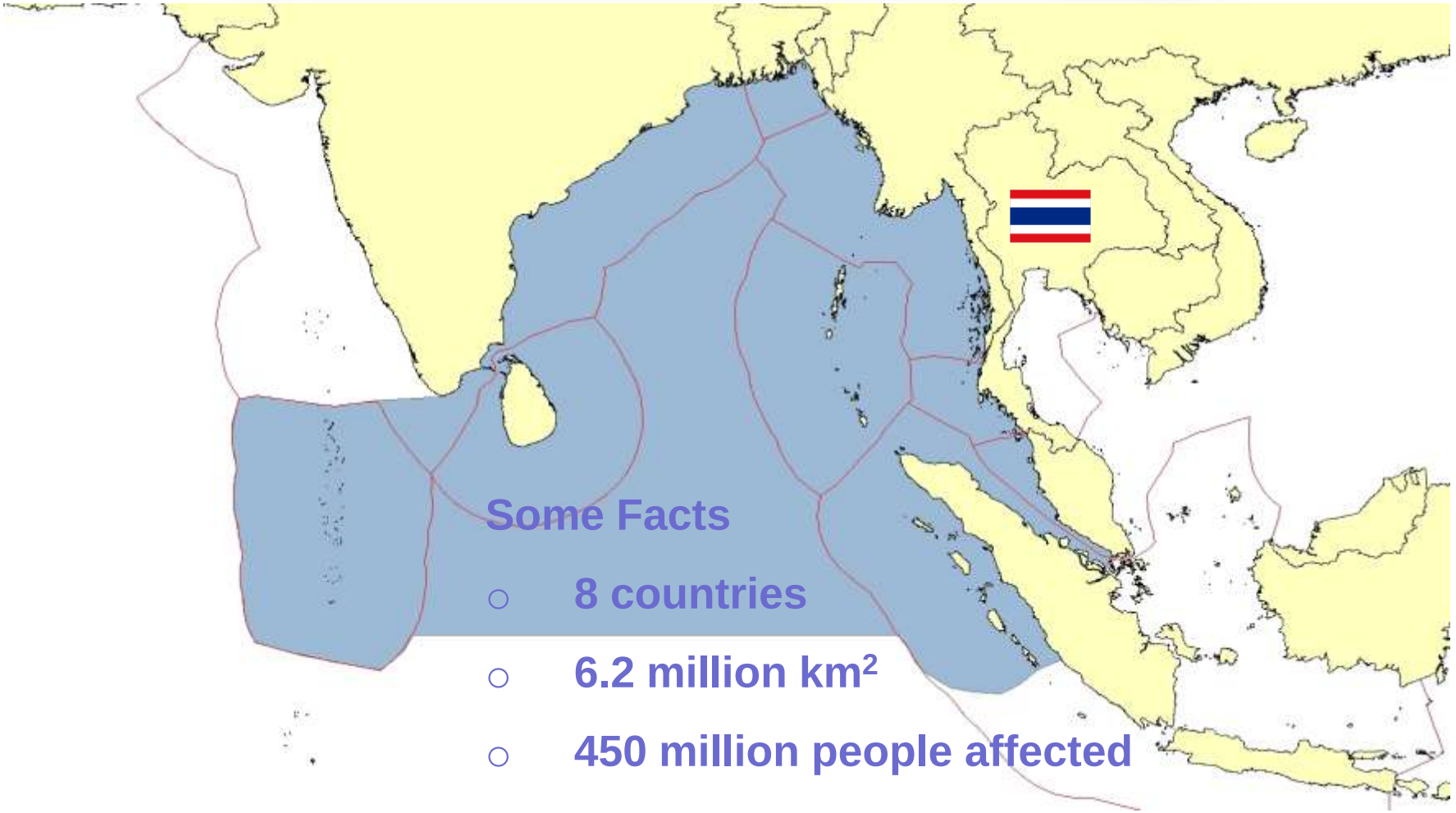
- A string of 17 Marine National Parks, 1 non-hunting area and 1 biosphere reserve

- ~ 78 sqkm of coral areas of which 62% inside MPAs
- About 400 hard coral species

- ~1/3 of total marine fisheries
- ~10 million visitors/year

- Under World Heritage Nomination

Eight countries, connected by one ecosystem,
working together to secure its future.

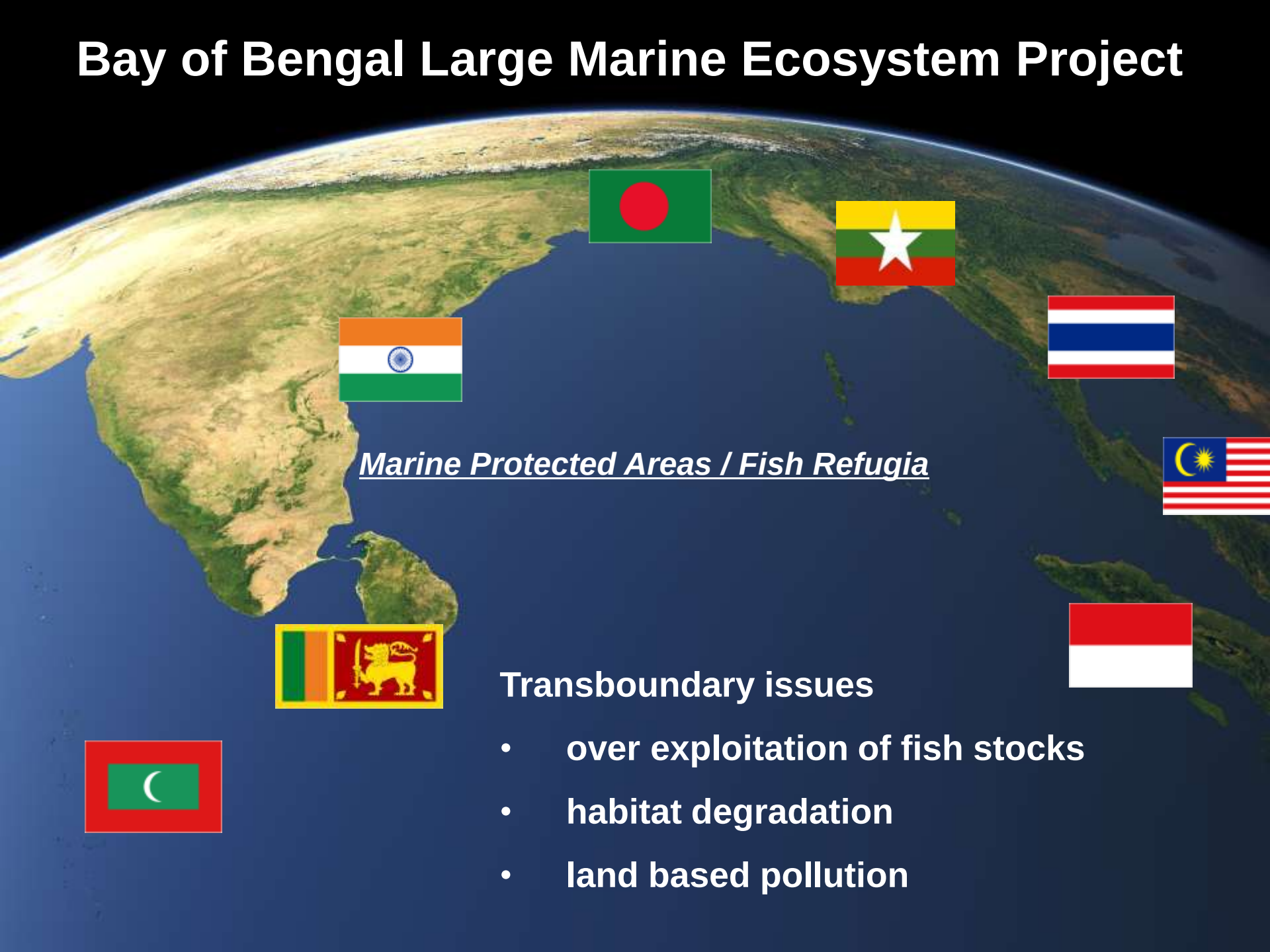


Some Facts

- **8 countries**
- **6.2 million km²**
- **450 million people affected**

Bay of Bengal Large Marine Ecosystem Project

Bay of Bengal Large Marine Ecosystem Project



Marine Protected Areas / Fish Refugia

Transboundary issues

- **over exploitation of fish stocks**
- **habitat degradation**
- **land based pollution**

Table 2 *WCPA framework for assessing management effectiveness*

Elements of evaluation	Context	Planning	Input	Process	Output	Outcome
Explanation	***Where are we now?***	***Where do we want to be?***	***What do we need?***	***How do we go about it?***	***What were the results?***	***What did we achieve?***
What is being assessed	Importance, threats and policy environment	Protected area design and planning	Resources needed to carry out management	The way in which management is conducted	The quantity of the achievement	The quality of the achievement
Criteria that are assessed	Significance Threats Vulnerability National policy	Legislation and policy Site and system design Management planning	Resources of agency Resources of site Partners	Suitability of management processes	Results of management actions Services and products	Impacts; effects of management in relation to objectives
Focus of evaluation	Status	Appropriateness	Economy	Efficiency	Effectiveness	Effectiveness Appropriateness

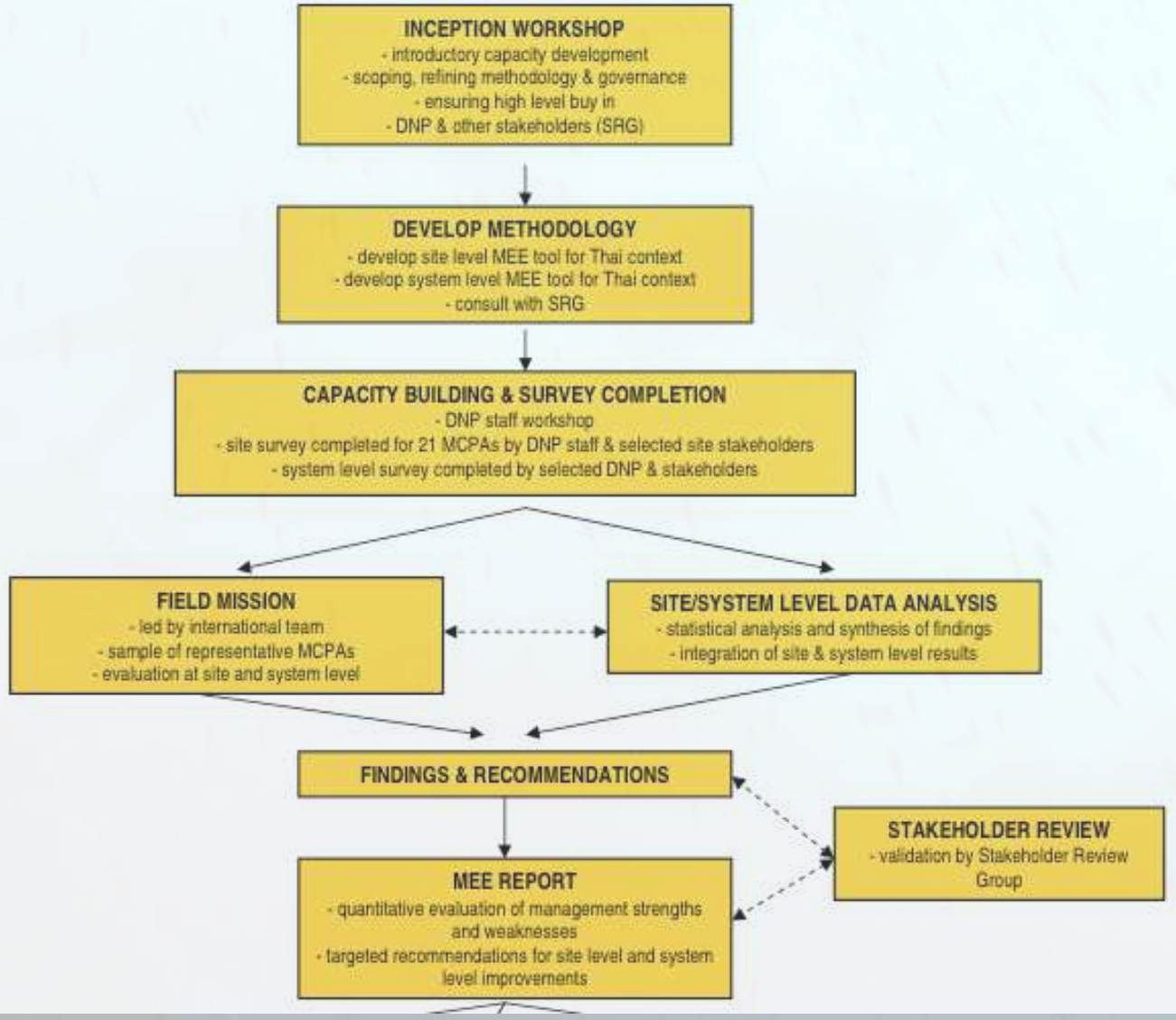
various assessment “toolkits”, ranging from rapid site-level scorecards to detailed assessment systems

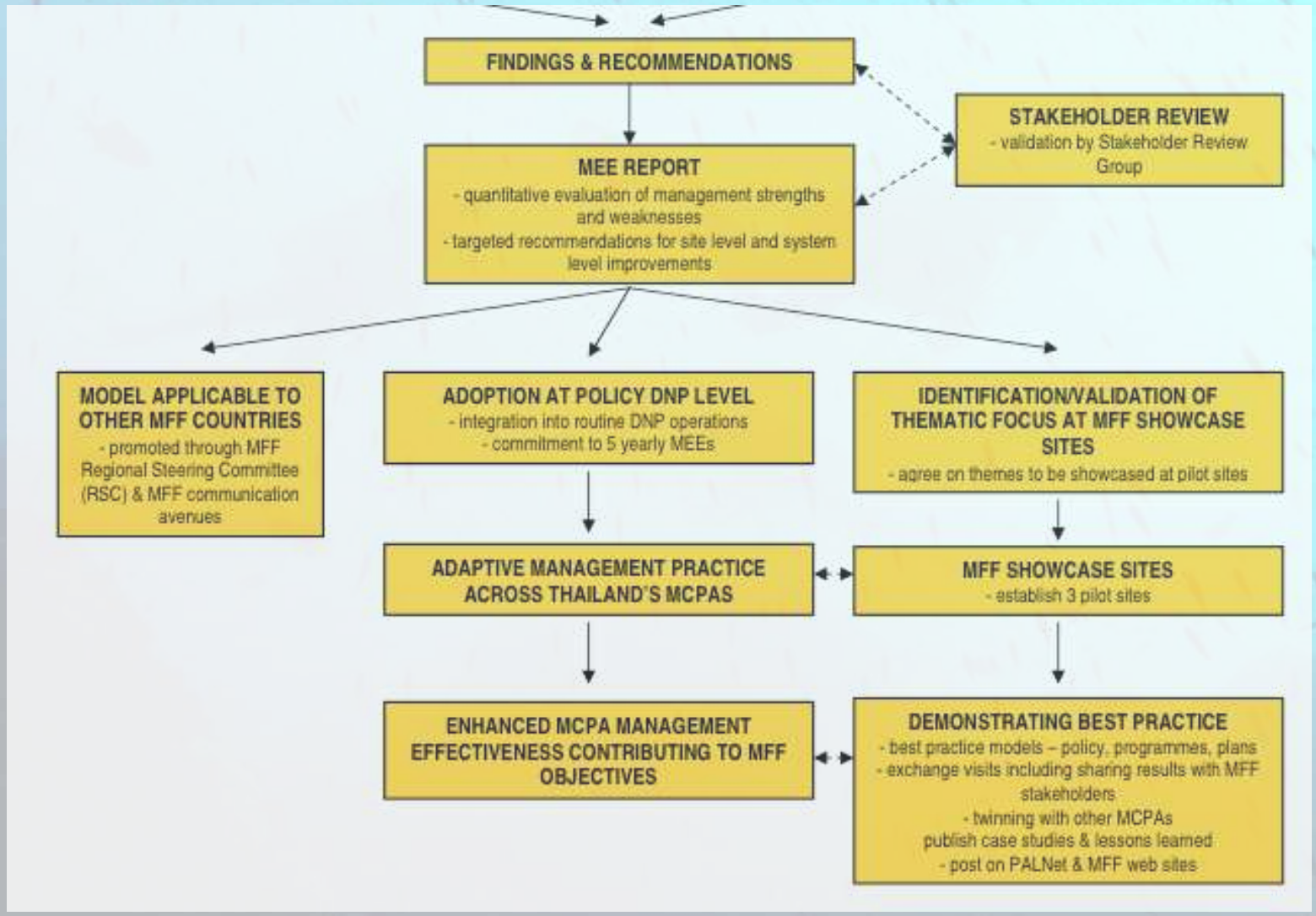
1. **System-level assessments**: addressing the management of a PA system as a whole either by assessing management of each of the sites within the system: *for example* use of New South Wales' *State of the Parks* system[13] or a combination of assessments of all (or a selection) of sites combined with an evaluation of the system itself considering a range of institutional level issues: *for example* the evaluation of the Korean PA system.[14]

2. **Portfolio-wide assessments**: covering all PAs that are part of an organisation's portfolio, which may therefore be a subset to an overall "PA system", aiming to provide advice to managers of PA portfolios of large donors or intergovernmental organisations: *for example* the use of the WWF/World Bank Tracking Tool to measure progress on project portfolios[15].

3. **Site-specific assessments** covering one or a cluster of contiguous PAs and aiming to provide guidance to protect areas managers: *for example* the *Enhancing our Heritage* project working with natural World Heritage sites[16].

EVALUATING & IMPROVING THE MANAGEMENT EFFECTIVENESS OF THAILAND'S MARINE & COASTAL PROTECTED AREAS




FINDINGS & RECOMMENDATIONS
STAKEHOLDER REVIEW
- validation by Stakeholder Review Group
MEE REPORT
- quantitative evaluation of management strengths and weaknesses
- targeted recommendations for site level and system level improvements
MODEL APPLICABLE TO OTHER MFF COUNTRIES
- promoted through MFF Regional Steering Committee (RSC) & MFF communication avenues
ADOPTION AT POLICY DNP LEVEL
- integration into routine DNP operations
- commitment to 5 yearly MEEs
IDENTIFICATION/VALIDATION OF THEMATIC FOCUS AT MFF SHOWCASE SITES
- agree on themes to be showcased at pilot sites
ADAPTIVE MANAGEMENT PRACTICE ACROSS THAILAND'S MCPAS
MFF SHOWCASE SITES
- establish 3 pilot sites
ENHANCED MCPA MANAGEMENT EFFECTIVENESS CONTRIBUTING TO MFF OBJECTIVES
DEMONSTRATING BEST PRACTICE
- best practice models – policy, programmes, plans
- exchange visits including sharing results with MFF stakeholders
- twinning with other MCPAs
publish case studies & lessons learned
- post on PALNet & MFF web sites

Site level assessment

- Inception workshop
- Capacity building and survey completion
- Preliminary analysis of results

Assessment "toolkits",

Part A: Description

Part B: Context information (plans, values, threats, stakeholders)

Part C: Resource allocation (staff and budget)

Part D: Management effectiveness

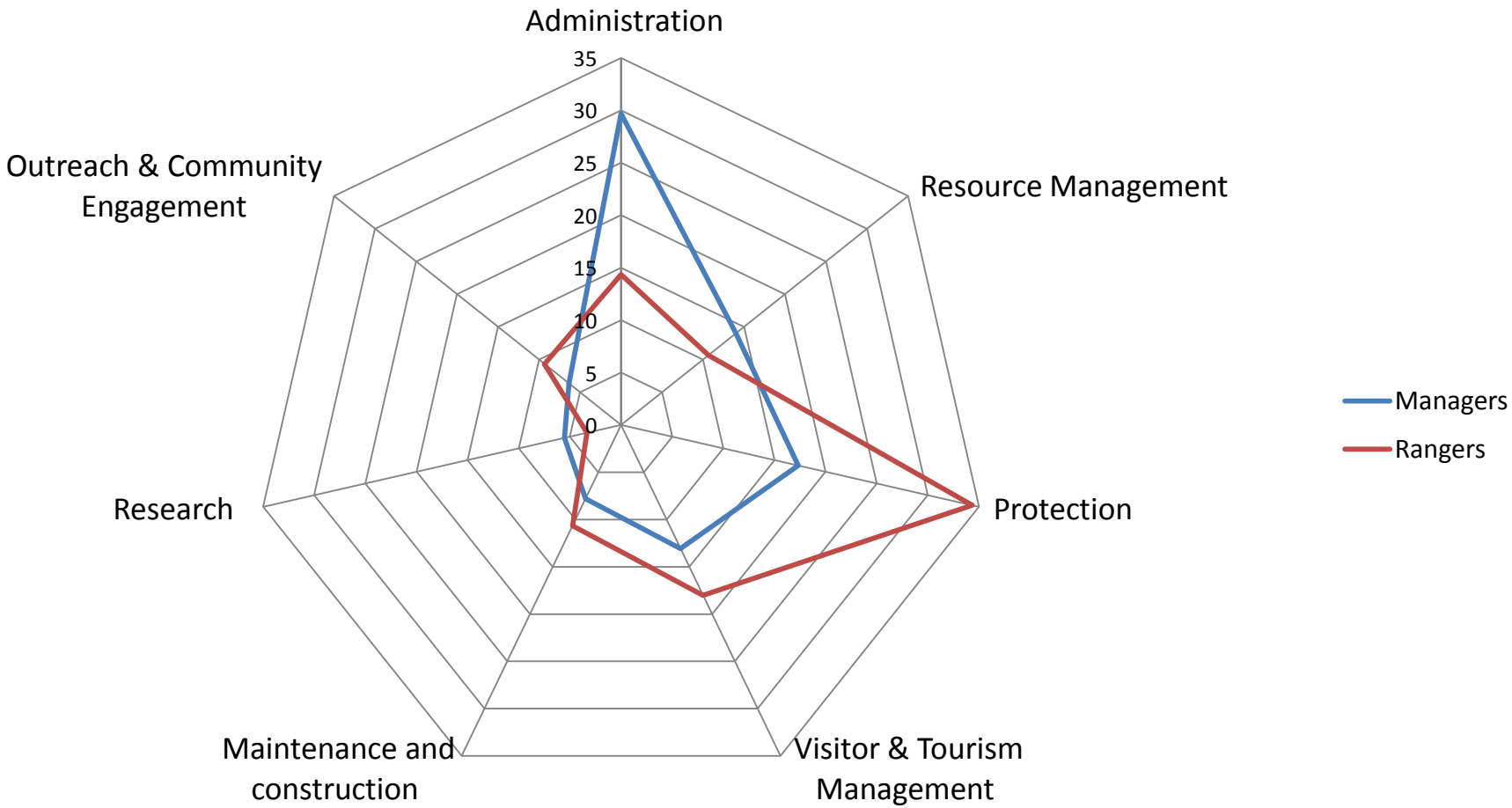
The assessment questionnaire in Part D consists of 35 questions covering natural and cultural resource management, communication, tourism and visitor management, consultation and engagement, resource protection and fisheries management, together with general aspects of PA management.

Overview

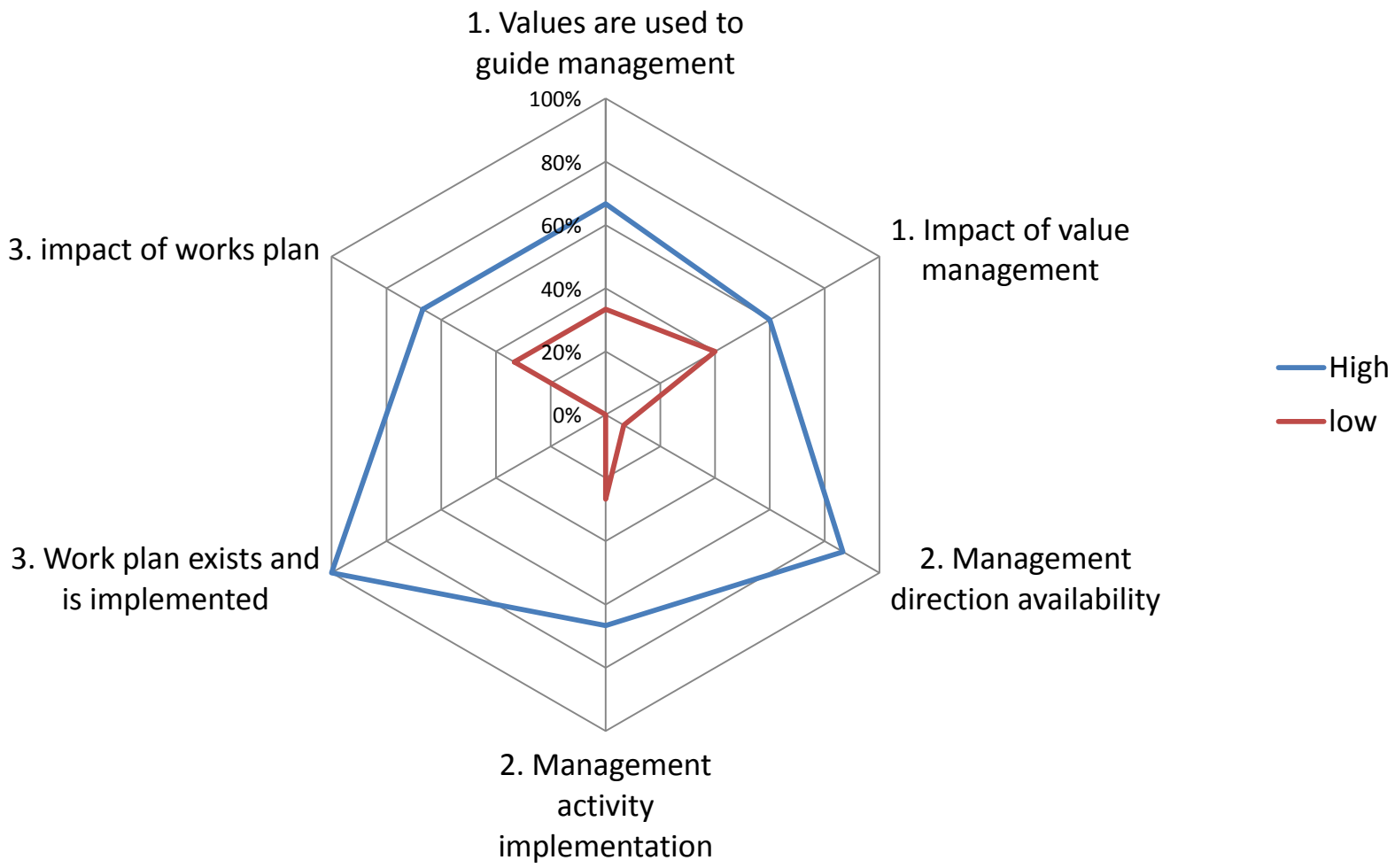
- The 16 surveyed parks all contain a component of both marine and terrestrial area.
- The median time since the parks were first gazetted is 22 years.
- There are five Ramsar sites, three ASEAN Heritage Parks and a World Heritage proposal is being considered for the marine parks in the Andaman Sea.
- The mean size of these parks is 178.3 km^2. The mean marine component of a park is 160.5 km^2. The total area included in the survey is 2674.5 km^2.
- On average, parks receive 44,930 Thai visitors and 22,691 international visitors, with a total of 1,081,946 visitors to the selected parks per annum.
- the median of 9, 485 neighbours, provides a better indication of true numbers. Seven of the parks also have residents within their boundaries, with an average of 1,397 (min 79; max 3000) people living within the park

Expenditure by function

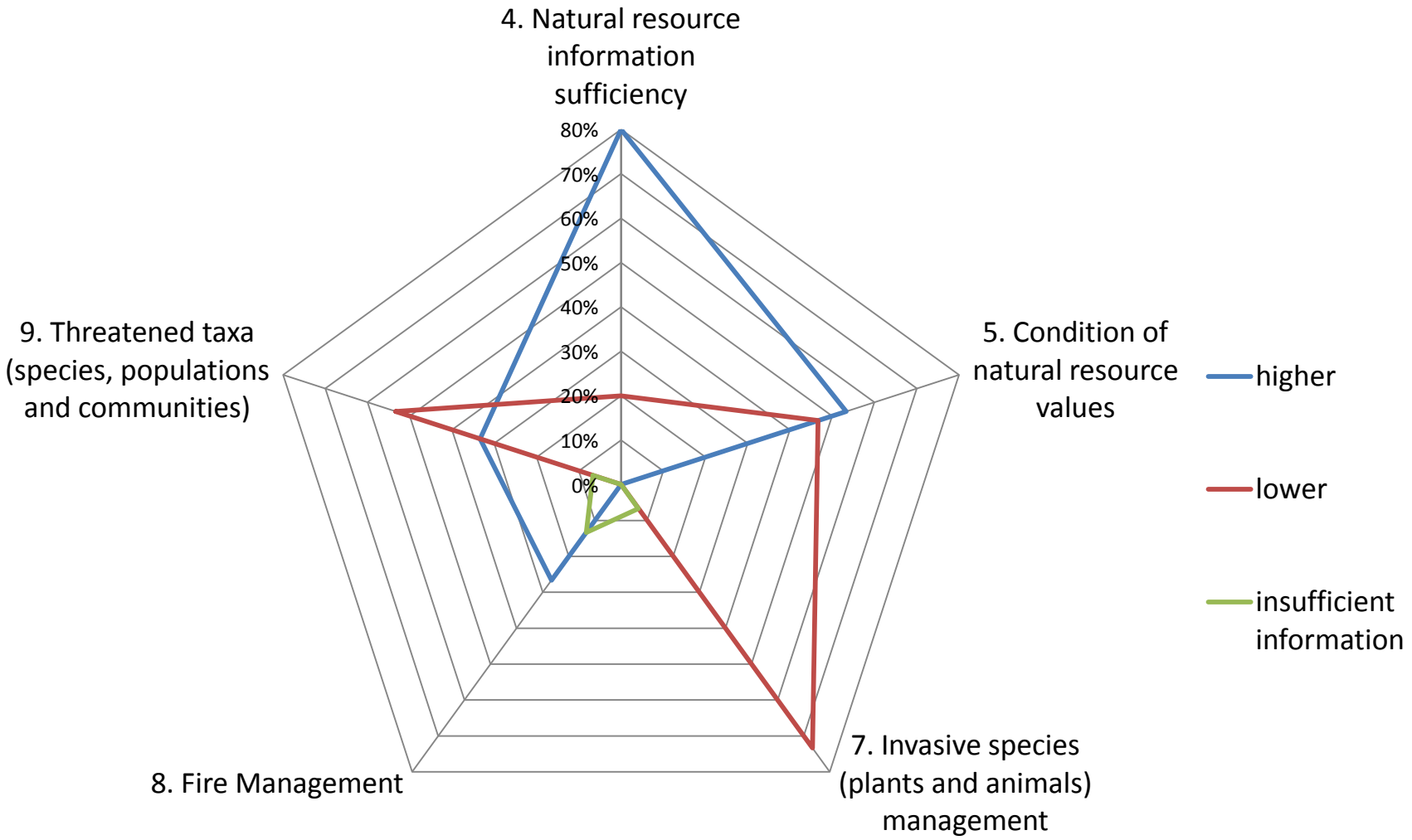
Staff time allocation



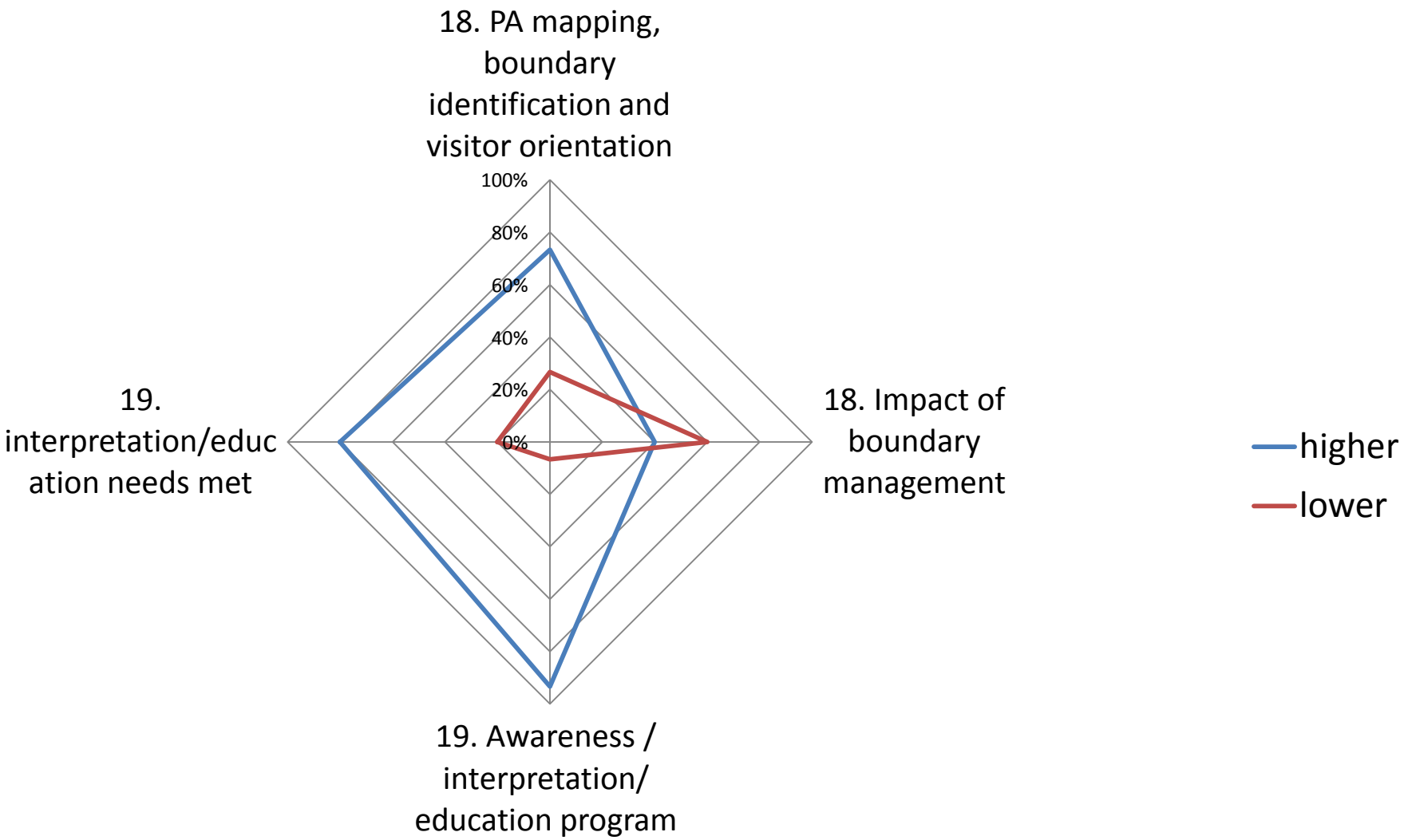
Management Direction



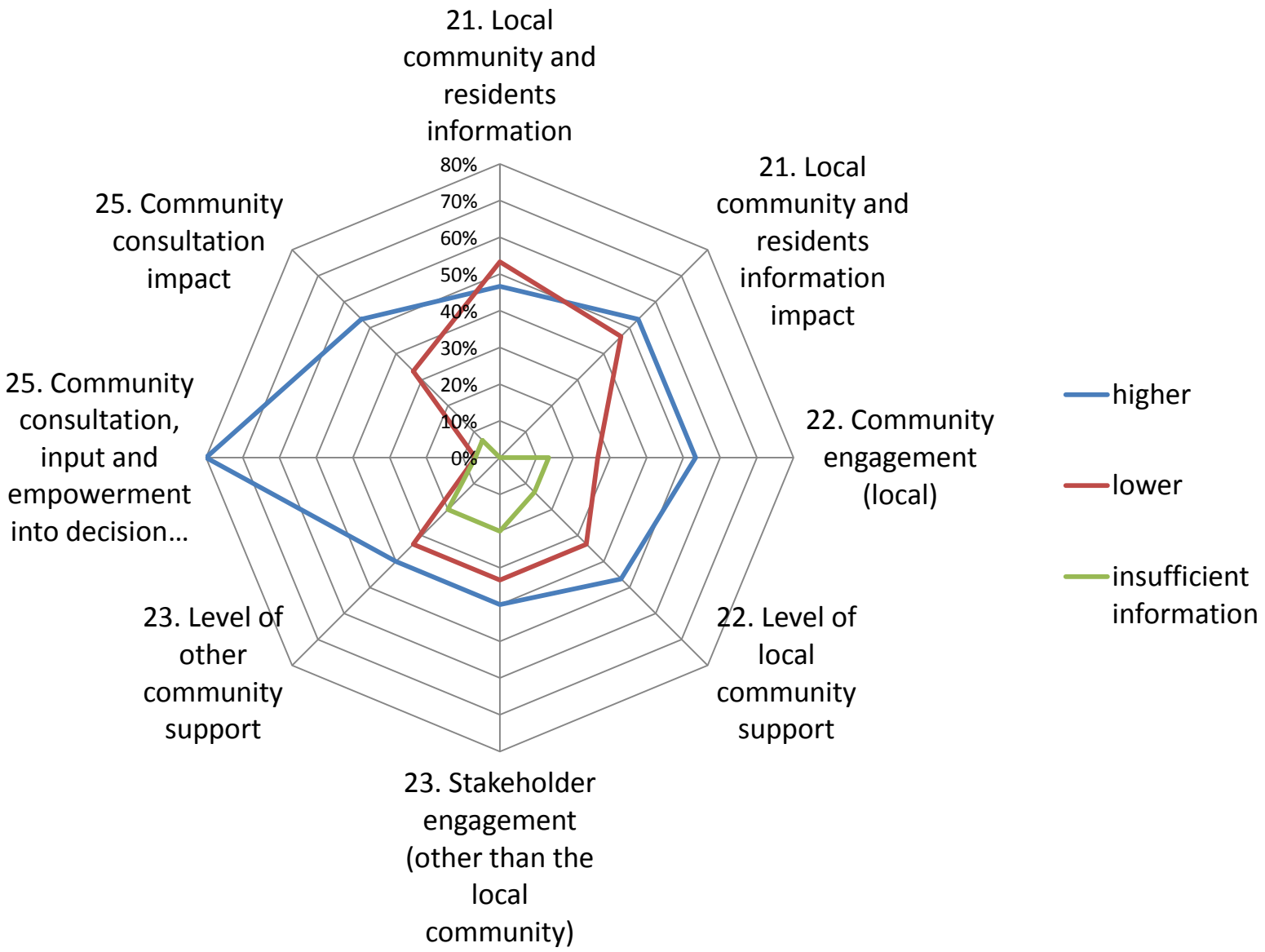
Natural Values Management



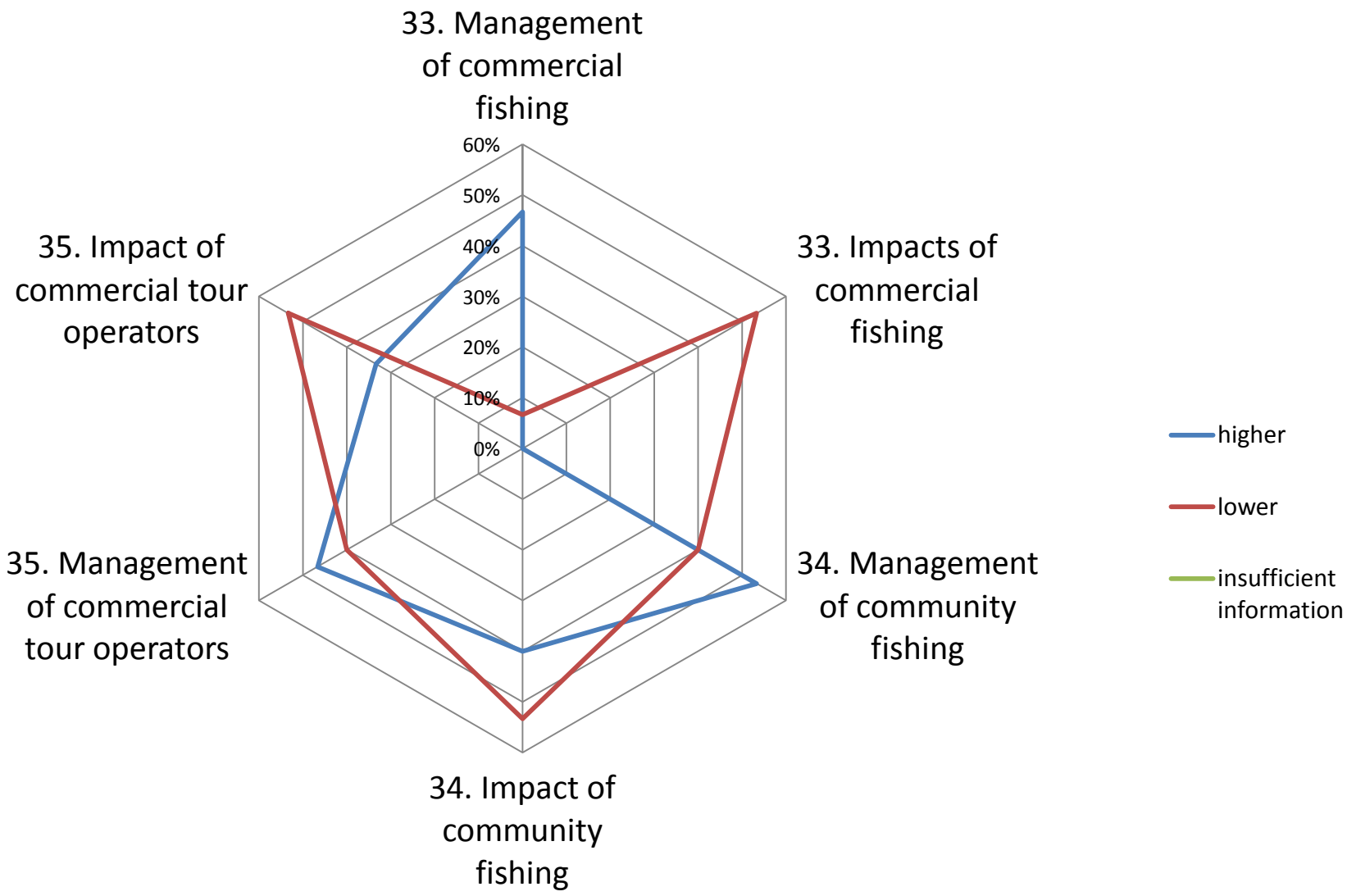
Park identification and interpretation

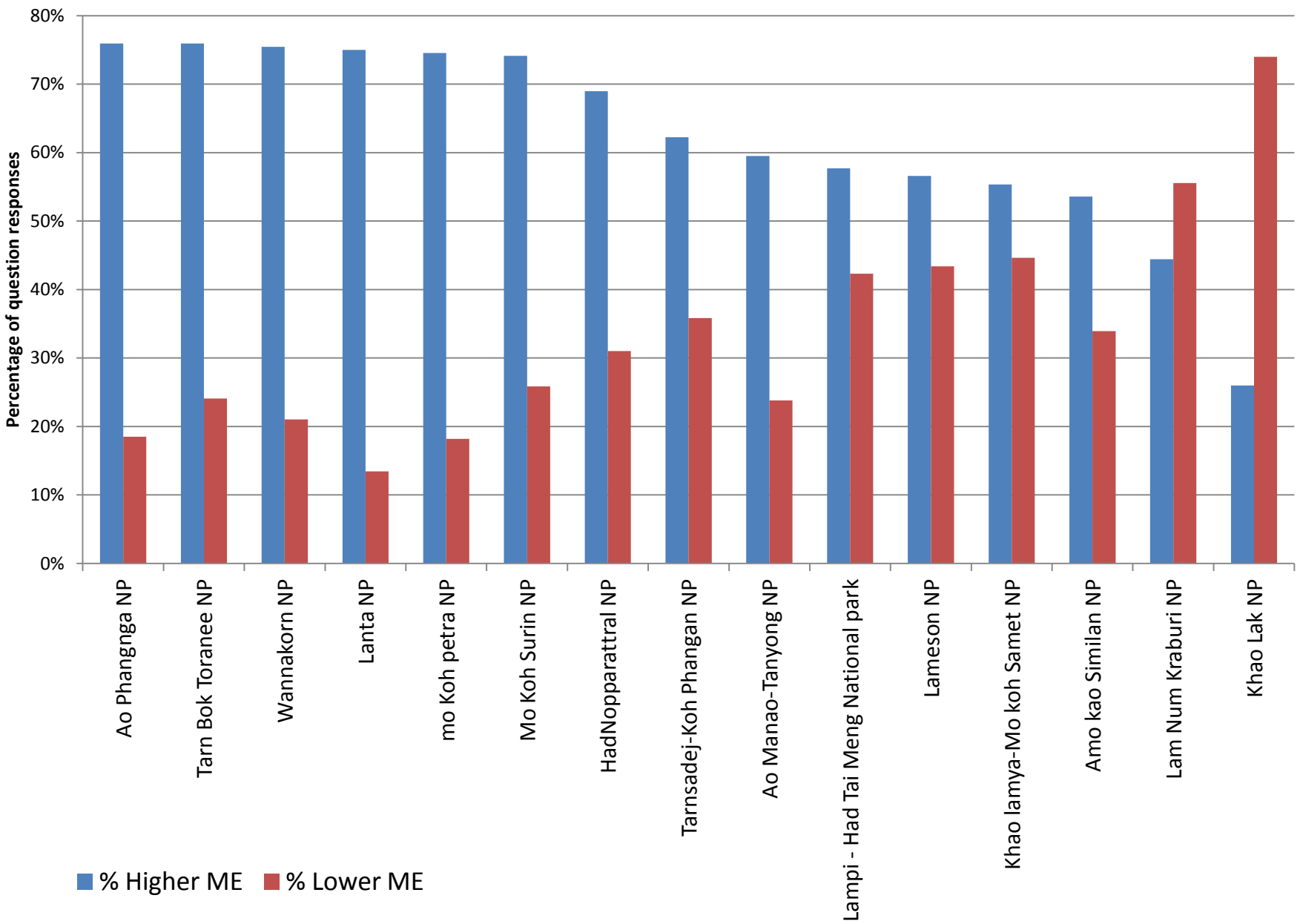


Community engagement



Fisheries &Tour Operator Management




Park performance as a percentage of responses to questions
Percentage of question responses
80%
70%
60%
50%
40%
30%
20%
10%
0%
Ao Phangnga NP
Tarn Bok Toranee NP
Wannakorn NP
Lanta NP
mo Koh petra NP
Mo Koh Surin NP
HadNopparattral NP
Tarnsadej-Koh Phangan NP
Ao Manao-Tanyong NP
Lampi - Had Tai Meng National park
Lameson NP
Khao lamya-Mo koh Samet NP
Amo kao Similan NP
Lam Num Kraburi NP
Khao Lak NP
% Higher ME
% Lower ME

System level assessment

- Management & stakeholder interviews
- Survey completion
- Field validation
- Preliminary findings and recommendations

Context

a) Is there a clearly articulated vision for the on-going development and management of the Korean PA system?	2
b) The most important areas containing the key biodiversity values for the country are contained within the protected area system	2
c) What level of current and/or potential threat is the system and its protected areas facing?	1-2
d) What is the level of awareness and support of the community towards the protected area system as a whole?	1-2
e) To what extent do policies, legislation (other than PA legislation), and institutions in the area support protection and management of protected areas?	1
f) To what extent do institutional structures for PA management support effective and integrated management	1-2
g) To what extent do Thai PA Agencies participate in international and regional agreements, alliances, partnerships and cooperative arrangements and meet standards for the management of affected Pas?	2

Draft only – not for wider circulation

Planning

a) To what extent do protected areas have clear tenure and legal status (including physical and graphical demarcation of boundaries)?	2
b) Is there an appropriate range of categories	2
c) Is there an appropriate range of governance types?	2
d) Is legislation adequate to manage and protect PAs?	2
e) How adequate is the PA system (considering system design (ecological representativeness, adequacy and comprehensiveness), size, configuration and connectivity) to conserve the natural values of the country?	2
f) Do Thai PA agencies develop and implement national strategies or frameworks for the management of system-wide issues or sectoral influences (eg Tourism, visitor management, revenue generation, disaster management, climate change, invasive species)	2-3
g) How adequate are systems and processes for management planning?	3
g) What proportion of marine and coastal areas have management plans?	81%

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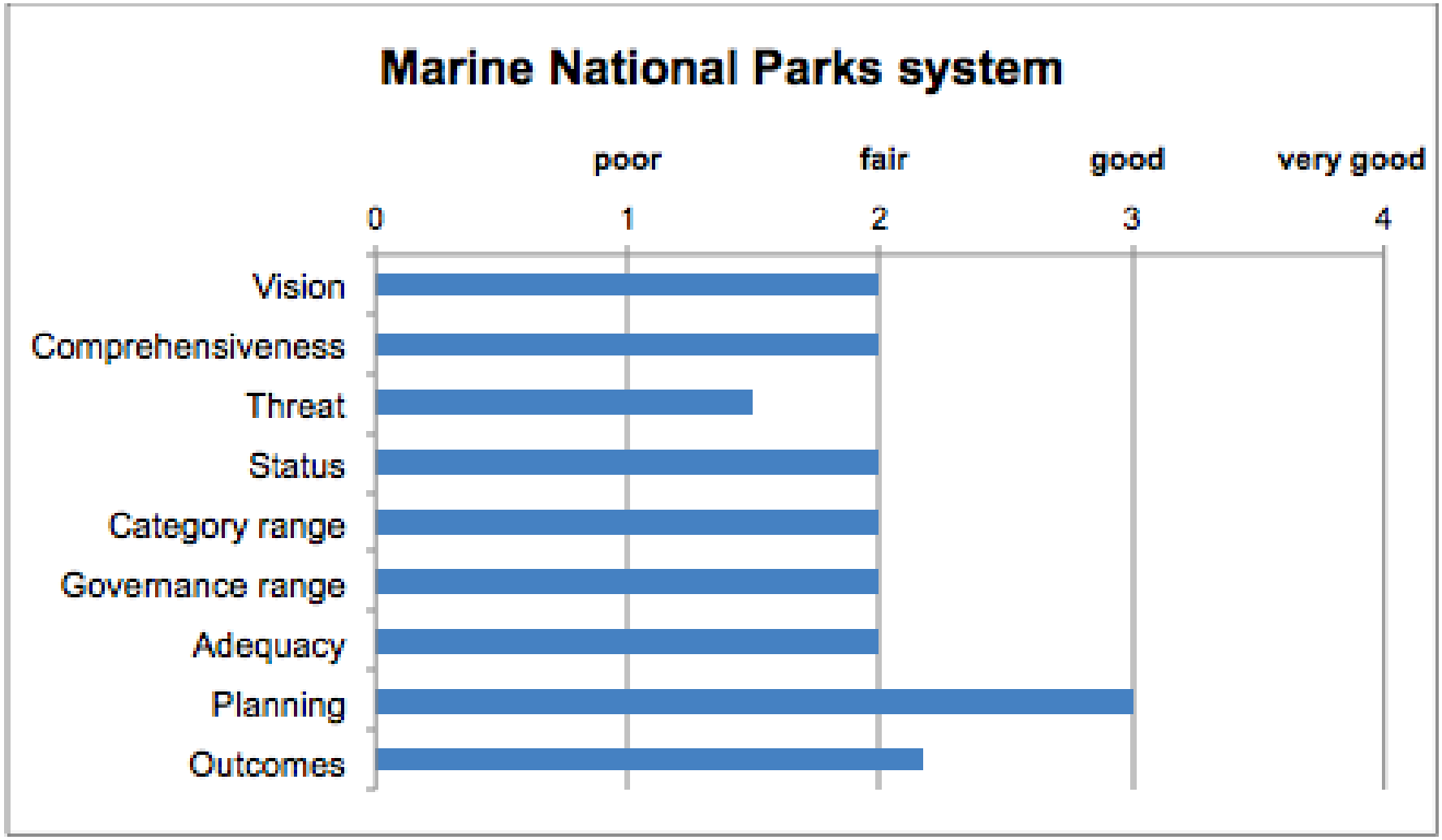
Summary

Indicators



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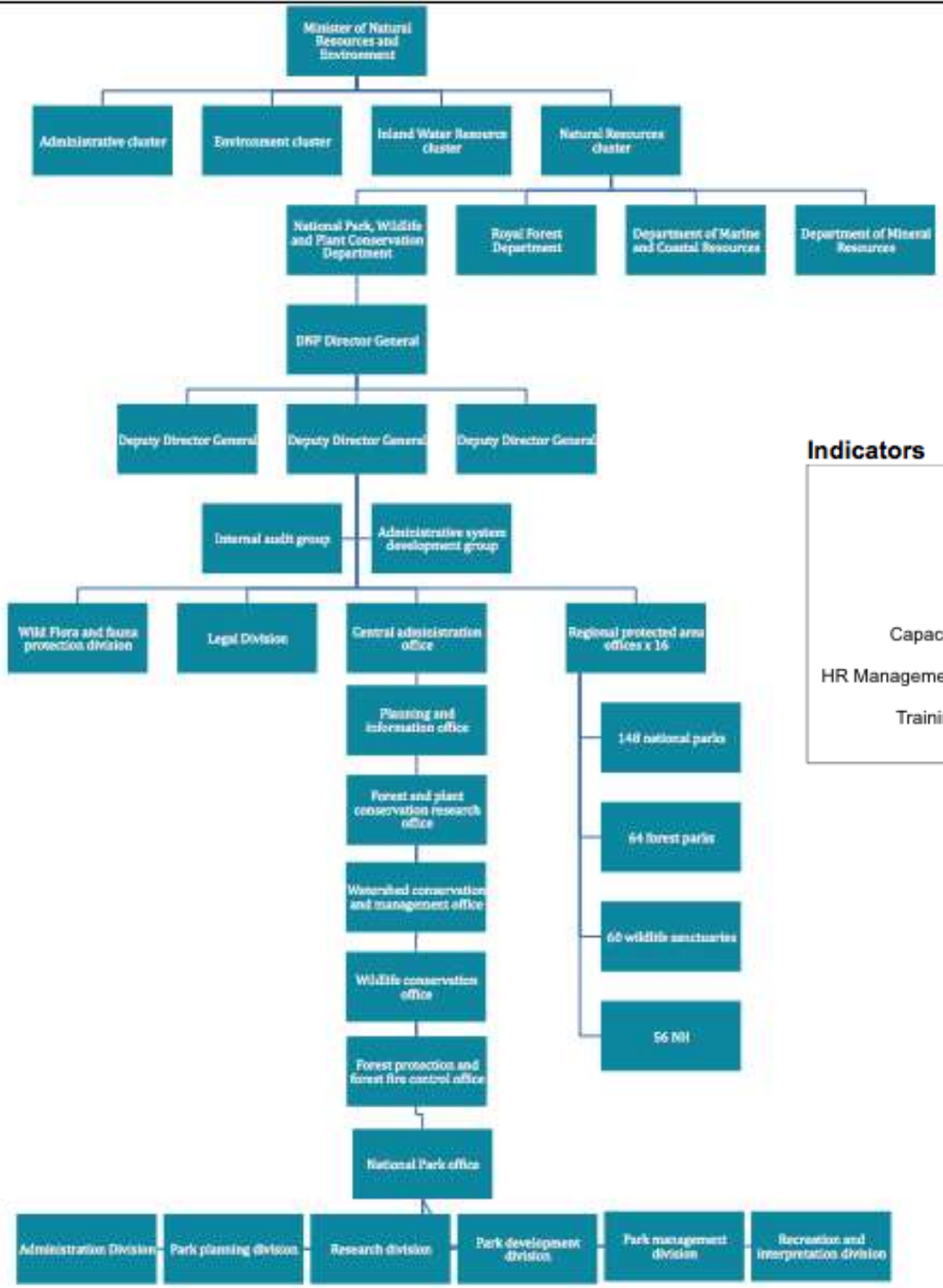
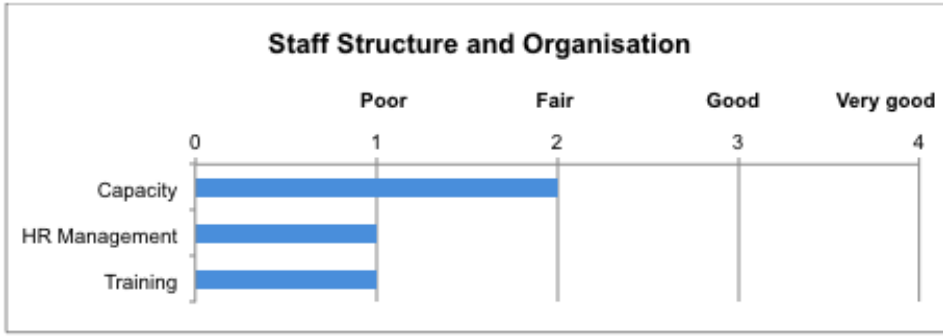

Minister of Natural Resources and Environment
Administrative cluster
Environment cluster
Inland Water Resource cluster
Natural Resources cluster
National Park, Wildlife and Plant Conservation Department
Royal Forest Department
Department of Marine and Coastal Resources
Department of Mineral Resources
DNP Director General
Deputy Director General
Deputy Director General
Deputy Director General
Internal audit group
Administrative system development group
Wild Flora and fauna protection division
Legal Division
Central administration office
Regional protected area offices x 16
Planning and information office
Forest and plant conservation research office
Watershed conservation and management office
Wildlife conservation office
Forest protection and forest fire control office
National Park office
148 national parks
64 forest parks
60 wildlife sanctuaries
96 NPI
Administration Division
Park planning division
Research division
Park development division
Park management division
Recreation and interpretation division

Indicators


Staff Structure and Organisation
Poor
Fair
Good
Very good
0
1
2
3
4
Capacity
HR Management
Training

Indicators

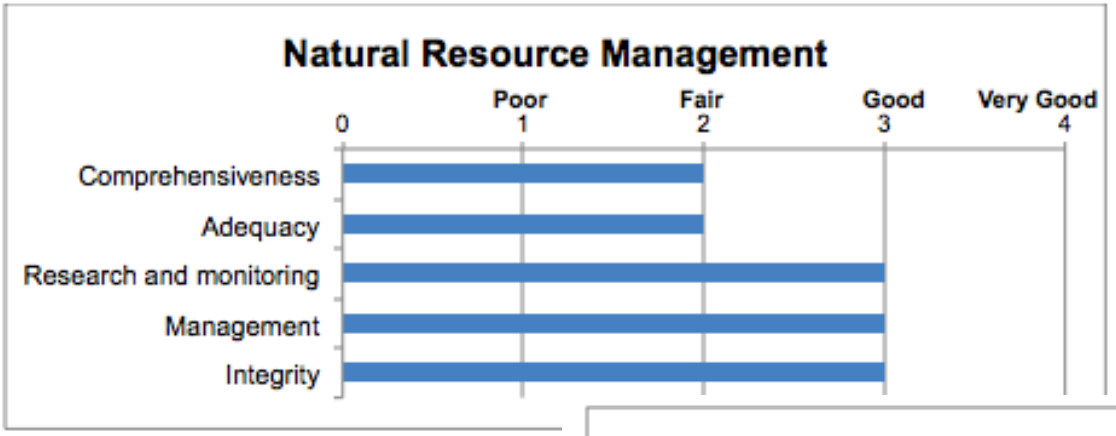
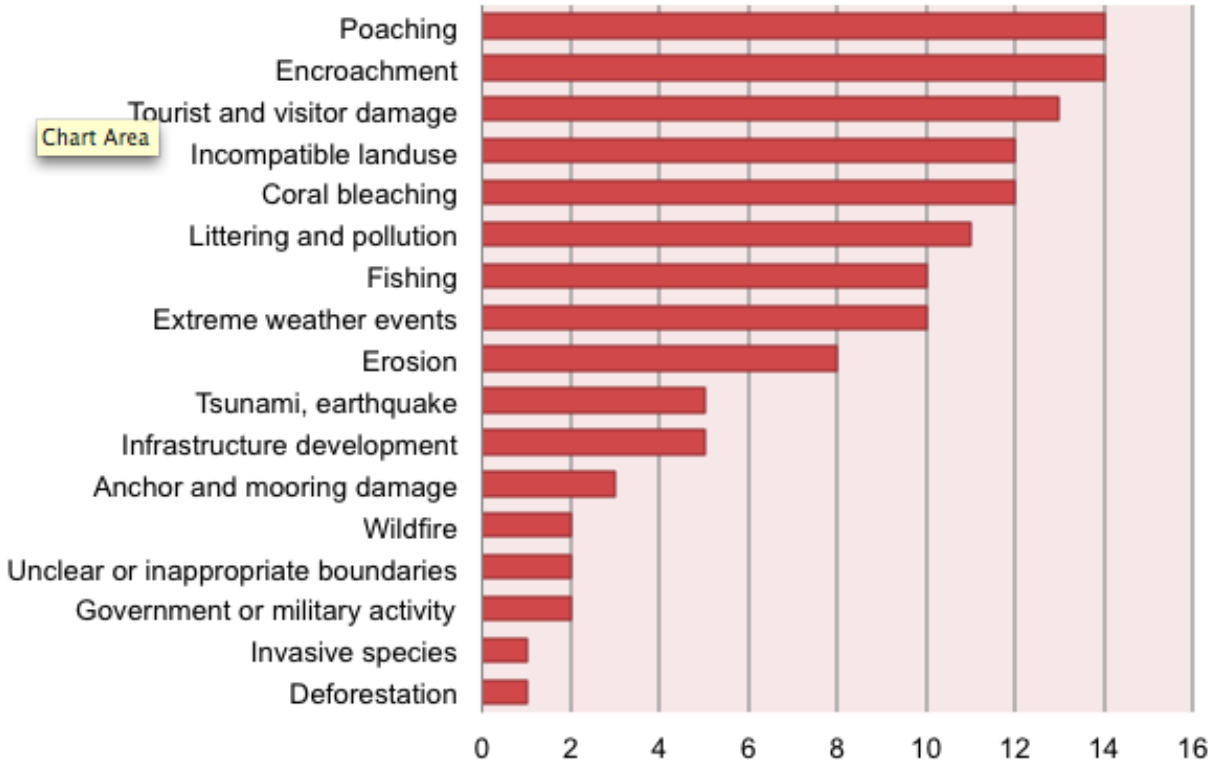


Table3 *Frequency of reported current and emerging threats to Natural Values*



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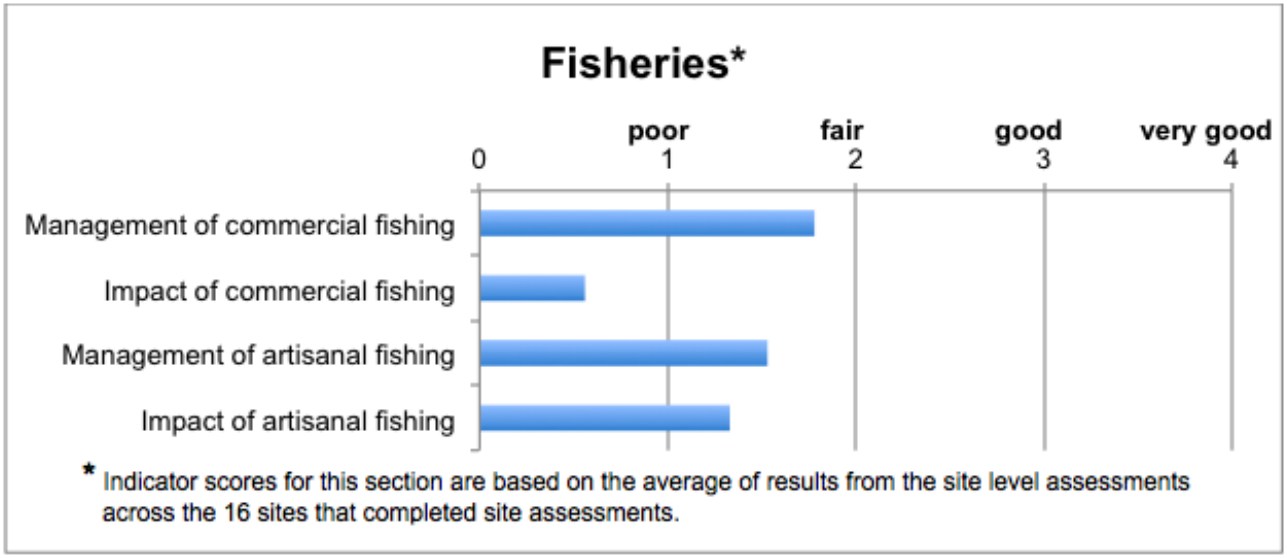
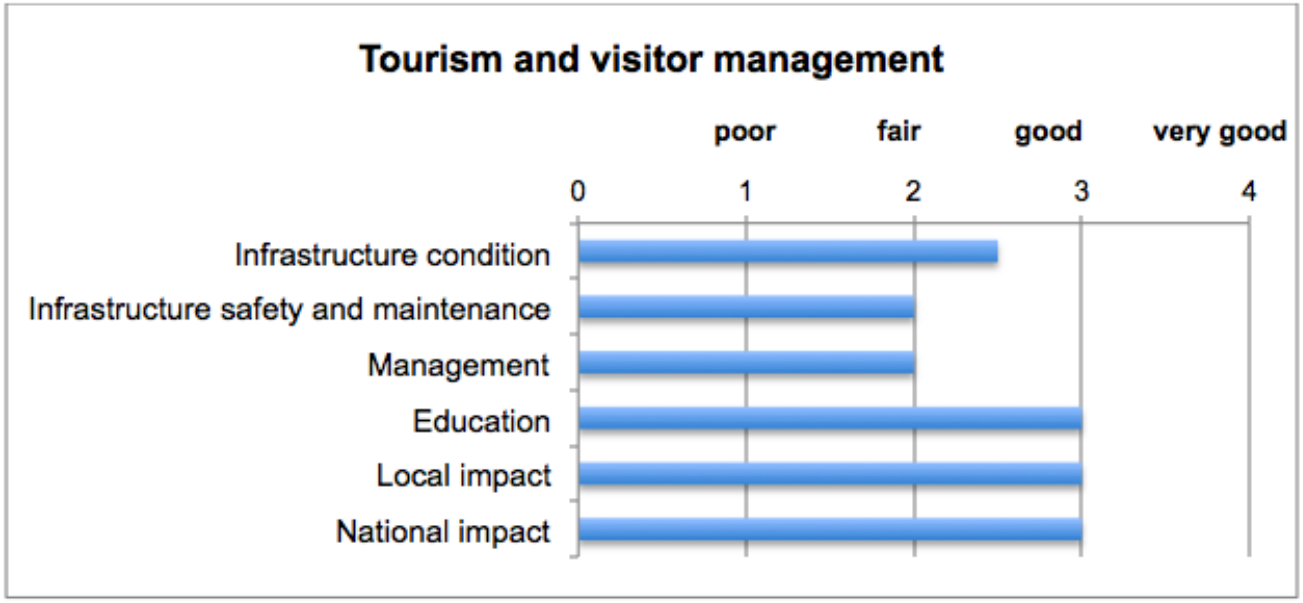


* Indicator scores for this section are based on the average of results from the site level assessments across the 16 sites that completed site assessments.

Indicators



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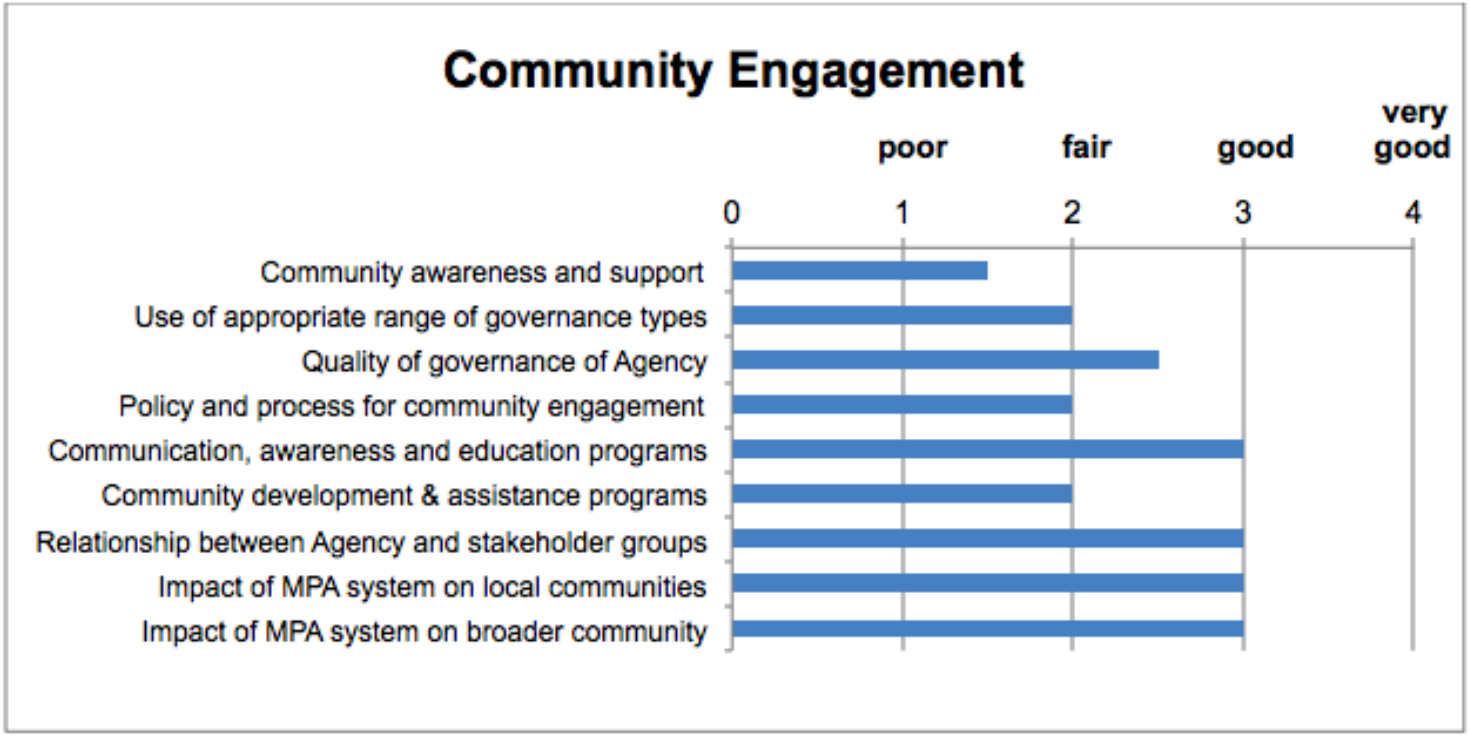
Community Engagement
poor
fair
good
very good
0
1
2
3
4
Community awareness and support
Use of appropriate range of governance types
Quality of governance of Agency
Policy and process for community engagement
Communication, awareness and education programs
Community development & assistance programs
Relationship between Agency and stakeholder groups
Impact of MPA system on local communities
Impact of MPA system on broader community

Ten Key Recommendations

Strengthen the foundations of the protected area system

1. **Review and reform the National Parks Act (1961)** to align it with contemporary protected area (PA) legislation, including its relationship to other statutes (especially the Fisheries Act) and incorporate marine protected area management, management planning, zoning, community consultation and management of tourism and commercial activities. The reform process would benefit from several IUCN guidelines in particular the IUCN Guidelines for Protected Area Legislation[1] and the IUCN Guidelines on Protected Management Area Categories[2].

2. **Adopt the Thai Protected Area Master Plan** (in preparation) **and complete the Thai protected area system** which sets the vision for the protected area system and articulates the values, benefits and potential outcomes of a properly resourced protected area system as a contributor to Thailand's conservation and development aspirations. The Master Plan should guide the completion by 2020 of the Thai MCPA network (of which MNPs are only a part) implementing the findings of the gap analyses conducted over the past decade to build a balanced and resilient system having regard to comprehensiveness, adequacy, representativeness and connectivity. By 2020 DNP should ensure that each unit has an effective and implemented management plan.

Address the threat of uncontrolled fishing

3. **Initiate an integrated programme to improve fisheries management within MNPs** addressing legal and institutional reform and harmonization; improved training of protected area staff, livelihood security; and strengthened monitoring of marine resources. Develop and implement zoning systems for MNPs which can accommodate no-take zones as well as multiple use zones thereby balancing sustainable marine use with conservation.

Coordinate protected area system management

4. **Reform DNP and interagency relationships** within the Thai Ministry of Natural Resources and Environment and other relevant Ministries to streamline management accountabilities and coordinate activities between agencies. Review delegations of authority to regional protected area offices and protected area managers to improve decision-making processes and enhance liaison with provincial, local and community governments and the business sector.

Increase management capacity

5. **Establish a sustainable financing base** for marine protected area management by segregating MNP budgets from terrestrial protected areas, diversifying revenue sources, establishing site-based incentives for revenue generation in each MNP and developing periodic (3 to 5 years) departmental corporate plans and annual business plans to inform government and provide leadership to managers about corporate direction, programs and strategies.

6. **Reform staff placement and training policies** to provide continuity in delivery of services and programs by qualified and experienced staff, particularly focusing on the rotation of MNP Superintendents and their staff and the provision of needs-based training in marine and coastal management, law enforcement, community engagement and tourism management. Consider establishing a core group of staff who are qualified and experienced in marine and coastal management who remain in the MNP system to provide ongoing expertise, guidance and on-the-job training to other staff. Aim to have at least 75% of MNP superintendents with a marine background by 2015 and for all MNPs to have at least one permanent professional staff member with relevant marine management experience and training.

7. **Develop an integrated programming, planning, research, monitoring and reporting system** to embed the principles of management effectiveness evaluation and adaptive management in the MNP system and which will complement other initiatives such as CATSPA and the PA Master Plan. Consider the preparation of a periodic (every 3 to 5 years) State of the Parks report based on a regular program of site-based management effectiveness assessment to track changes in MNP site condition and management improvement.

Engage stakeholders and communities

8. **Include local communities in MNP decision-making** by assessing and adopting different governance mechanisms which have been used or proposed for the Thai PA system. For example through expanding the Andaman Seas Committee structure proposed as part of the planned World Heritage nomination or through replicating and formalizing the Provincial Conservation Forums currently operating in the Western Forest Complex. Use these forums and the existing Protected Area Committees to engage communities in management planning processes and resolve disputes about encroachments whilst providing land and livelihood security through values-based boundary rationalisation.

9. **Develop partnerships with the tourism industry** and Ministry of Tourism to protect and restore MNP natural values which provide the setting for tourist activities and services. Engage on an equal footing with the tourism sector in developing public-private partnerships and niche marketing strategies for the sustainable use of MNPs that yield an appropriate financial return to the system.

Enhance MNP resilience

10. **Address the key threats to the condition of biodiversity within MNPs** by undertaking a risk-based vulnerability assessment of climate change, extreme weather events, tsunamis and earthquakes. Use the assessment to guide planning and management to reduce the impact of damaging human-induced pressures that exacerbate the effects of natural disasters. Develop a disaster response plan to inform visitors about hazards and provide managers with the training and means to respond promptly and effectively to major incidents.

Thank You!