

What Counts in Making MPAs Count?

The Role of Legitimacy in MPA Success in Canada

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Marine Protected Areas

- Marine Protected Areas (MPAs) are powerful ocean management tools.
- The conservation successes stemming from MPAs are plentiful.
 - Increasing the reproductive potential of Great Scallops in the Irish Sea by 13-fold.
 - Preventing further population decline of endangered Bottlenose Whales in The Gully MPA.



MPA Effectiveness

Only 31% of MPAs globally are “effective”, meaning that most MPAs fail to meet their management objectives.

PAPER PARKS

Poor Planning/Design

Lack of Scientific Knowledge

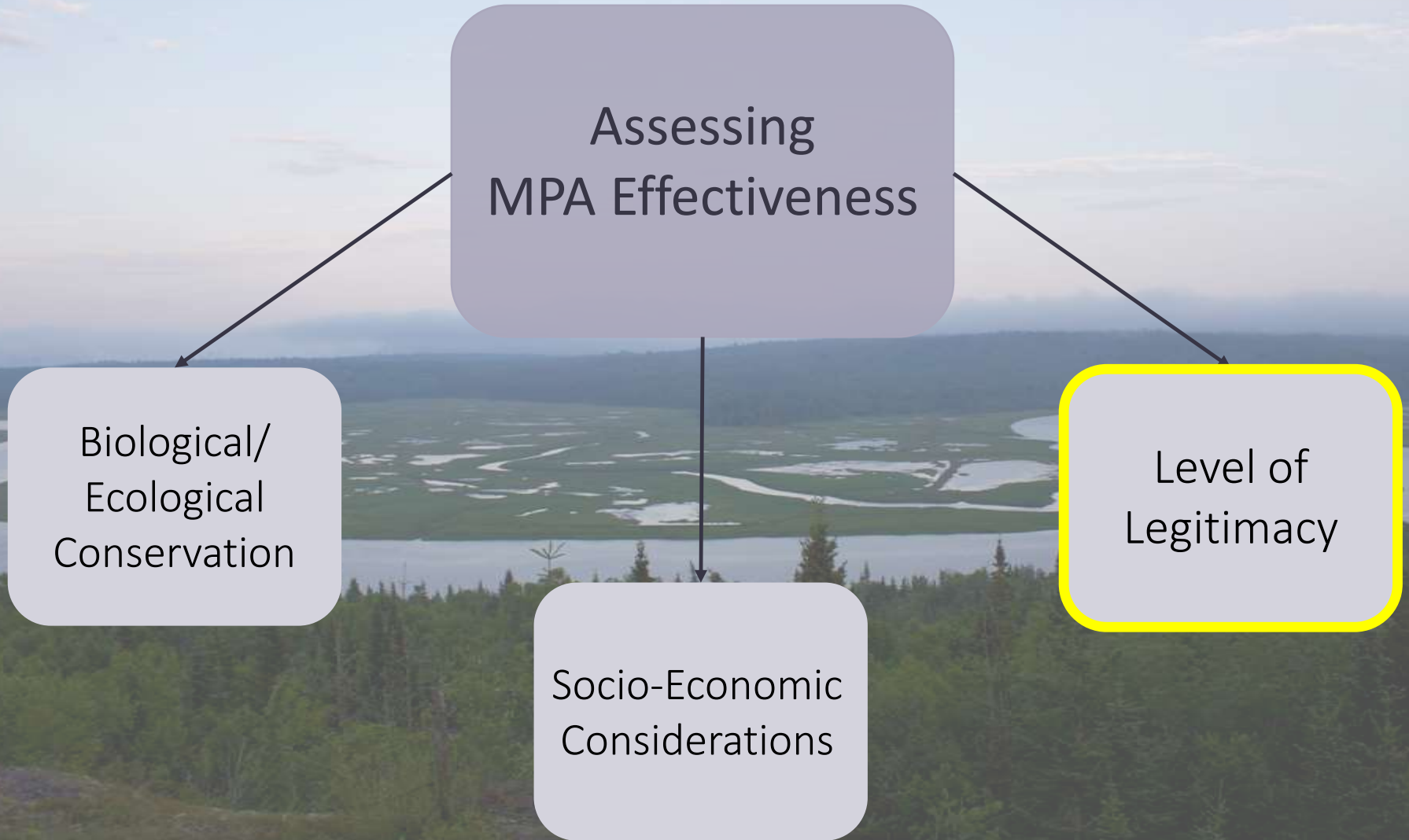
Insufficient Finances

Inadequate Staff

Lack of Political Support

Poor Decision Making

MPA Effectiveness



Legitimacy

Whether an MPA is perceived as right and just; accepted and supported by its stakeholders.

(MPAs are linked socio-ecological systems.)



- Increased stakeholder satisfaction
- Increased compliance with regulations/management decisions
- Perceived as an effective MPA

- Decreased stakeholder acceptance and support
- Lack compliance with regulations/management decisions
- Lack effectiveness, failing to reach management objectives

Legitimacy

Whether an MPA is perceived as right and just; accepted and supported by its stakeholders.



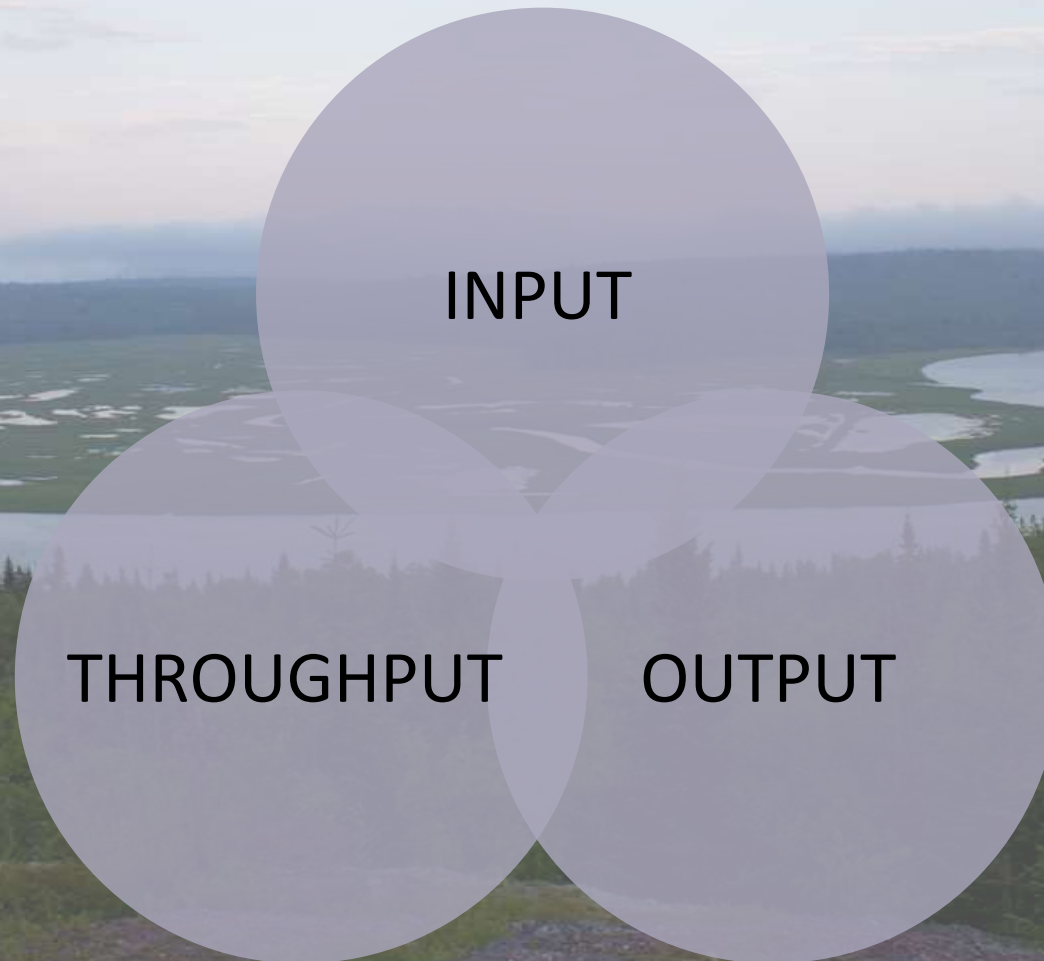
**MPA
EFFECTIVENESS**

The diagram consists of two light gray rounded rectangular boxes. The left box contains the text 'MPA EFFECTIVENESS' and the right box contains 'LEGITIMACY'. A large, light purple double-headed arrow connects the two boxes, indicating a bidirectional relationship between the two concepts.

LEGITIMACY

Legitimacy

Three distinct components necessary to the overall understanding of legitimacy, with various indicators for each:



Legitimacy

INPUT

Measures the scale and methods which stakeholders are engaged/included at the planning & design phase, prior to official MPA designation.

Diversity of Stakeholders

- Do stakeholders come from an assortment of different groups and organizations?

Power and Influence of Stakeholders

- How much influence and control do stakeholders have over the decision-making process?

Style of Stakeholder Engagement

- What methods were chosen to involve stakeholders (consultative, instructive etc.)?

Legitimacy

THROUGHPUT

Measures the quality of the practices, rules, and decision-making used to manage an MPA throughout its lifetime, after it has been designated.

Transparency of Management Decisions

- To what level are management actions made public and clear to stakeholders?

Cooperation Among Government

- How much coordination exists among the various levels and sectors of government in management?

Level of Enforcement

- To what extent are the rules and regulations of the MPA being enforced?

Legitimacy

OUTPUT

Measures the perceptions by stakeholders that the MPA has achieved its goals, and their acceptance of the governance process of the MPA.

Biological/Ecological Benefits

- To what extent have the conservation outcomes been achieved?

Education

- Has the local community gained knowledge regarding conservation and the MPA?

Economic Benefits

- To what extent have economic conditions, employment, and livelihood opportunities improved?

Current Unknowns

1

What are stakeholder's true expectations for an MPA?

2

What are the key factors influencing whether stakeholders perceive an MPA as effective?

3

Do the theoretical legitimacy indicators actually matter to stakeholders for affording an MPA legitimacy?

Project Purpose



Explore factors (indicators) that shape stakeholders' perceptions of MPA effectiveness, and the extent to which these factors contribute to the legitimacy they afford to an MPA.

Make it easier for managers to recognize, obtain, and measure legitimacy of their MPAs.

Why Is This Important?



**Convention on
Biological Diversity**



Current pressure for Canada to achieve 10% international target for marine protected areas by 2020.

Minimize the risk of establishing MPAs that are ineffective due to a lack of legitimacy, preventing the development of “paper parks”

Three-Part Methodology



1

Selection of Two MPA Case Studies

2

Semi-Structured Stakeholder Interviews

3

Qualitative Data Analysis

Three-Part Methodology



Selection of Two MPA Case Study Sites

- Atlantic Canada
- Small, Coastal
- Well established (~10 years)

Three-Part Methodology



Semi-Structured Stakeholder Interviews

- Summer 2016.
- Conducted in-person with representatives from key stakeholder groups at each MPA.
- 26 total participants.

PRIMARY STAKEHOLDERS

Community Members
Farmers & Fishers
Local Organizations
First Nations Reps

SECONDARY STAKEHOLDERS

NGOs
Government Representatives
Scientists
MPA Managers

Three-Part Methodology



Semi-Structured Stakeholder Interviews

Perceptions towards the MPA, its effectiveness, and the level of legitimacy they afforded it.



Perceptions on the importance of a listing of 41 indicators for legitimacy.
(not at all – extremely important).

Three-Part Methodology



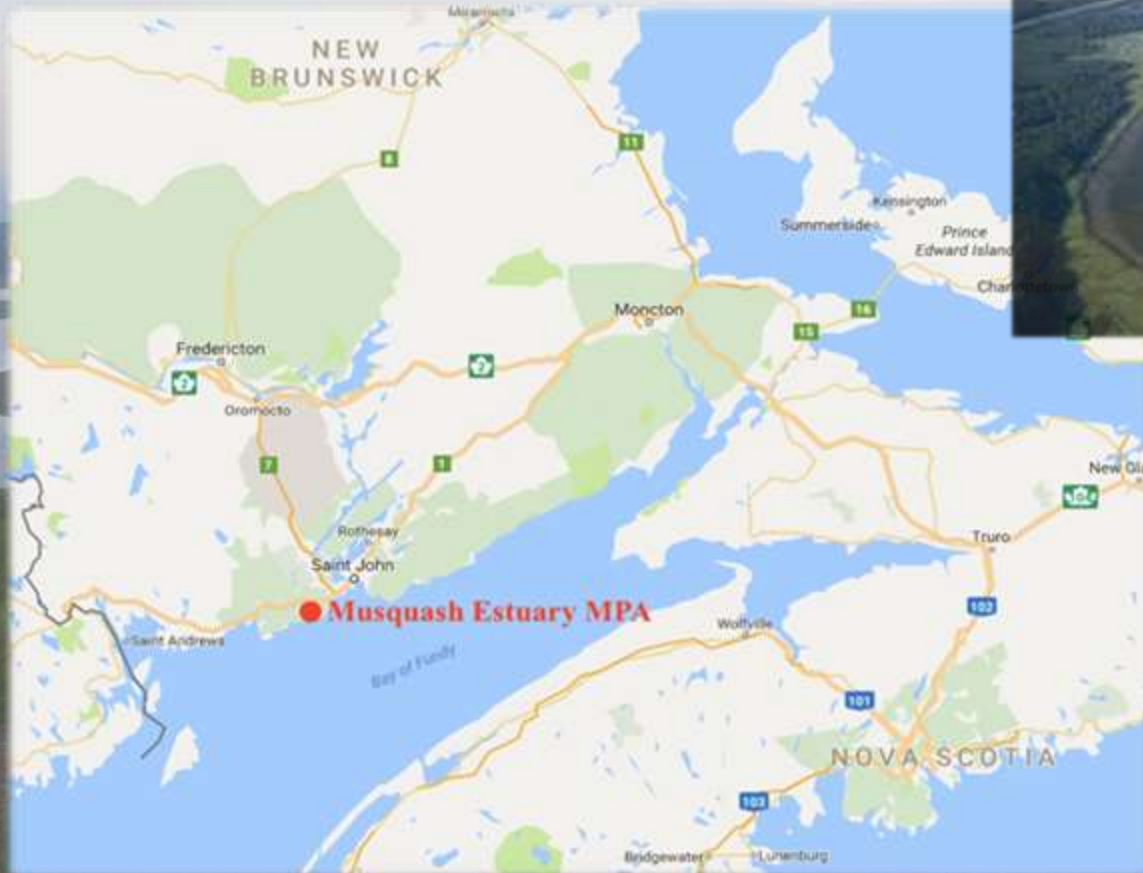
Qualitative Data Analysis

- By hand, using content analysis techniques in Microsoft Excel.
- Sites analyzed individually, then a comparative analysis was undertaken.

Musquash MPA Case Study

Musquash Estuary MPA, Est. 2006 in the Bay of Fundy, New Brunswick
11.4 km²

One of the few ecologically-intact large estuaries remaining in the Bay.



Basin Head MPA Case Study

Basin Head MPA, Est. 2005 on the Eastern tip of Prince Edward Island

22.8 km²

Coastal lagoon with a unique strain of endangered Irish Moss.



Chondrus crispus

Key Findings: MPA Effectiveness



Overall, Musquash and Basin Head are considered effective MPAs



Perceptions varied among stakeholder groups

PRIMARY STAKEHOLDERS

- Local scale
- Maintained way of life
- Not exclusive to conservation

SECONDARY STAKEHOLDERS

- More critical analysis
- Dependent upon factors such as size, ecological diversity
- Scientific objectives met

Key Findings: MPA Legitimacy



Stakeholders afford both Musquash and Basin Head MPA a high level of legitimacy

- Largely because there was a high degree of community leadership at both sites.
- Stakeholders indicated that government-led efforts alone will not garner *trust, credibility and support* needed to afford legitimacy.

Key Findings: Legitimacy Indicators



Consensus was achieved among all participants at both sites that ~ 70% of the listed indicators were highly important for affording legitimacy.

- Suggesting that regardless of context, stakeholders saw merit in measuring legitimacy (all three forms) as a critical component of MPA effectiveness.



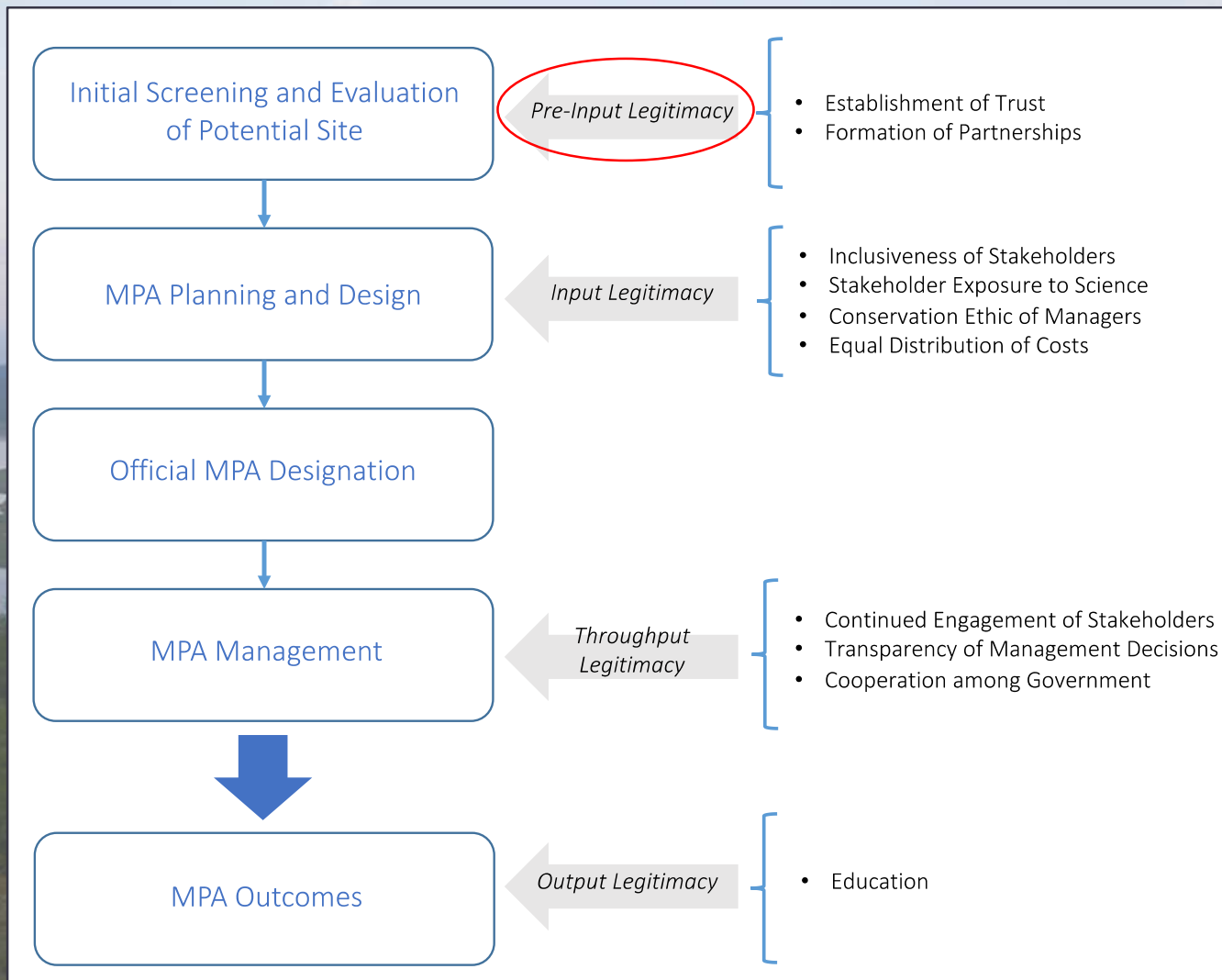
Contrasting opinions on the importance of some indicators were observed between stakeholder groups.

- Differences again were between primary and secondary stakeholders at each MPA.
- Suggesting it is important to understand the social/cultural landscape of stakeholders to predict how and why they will perceive an MPA and their expected desires.

Legitimacy Indicator Framework



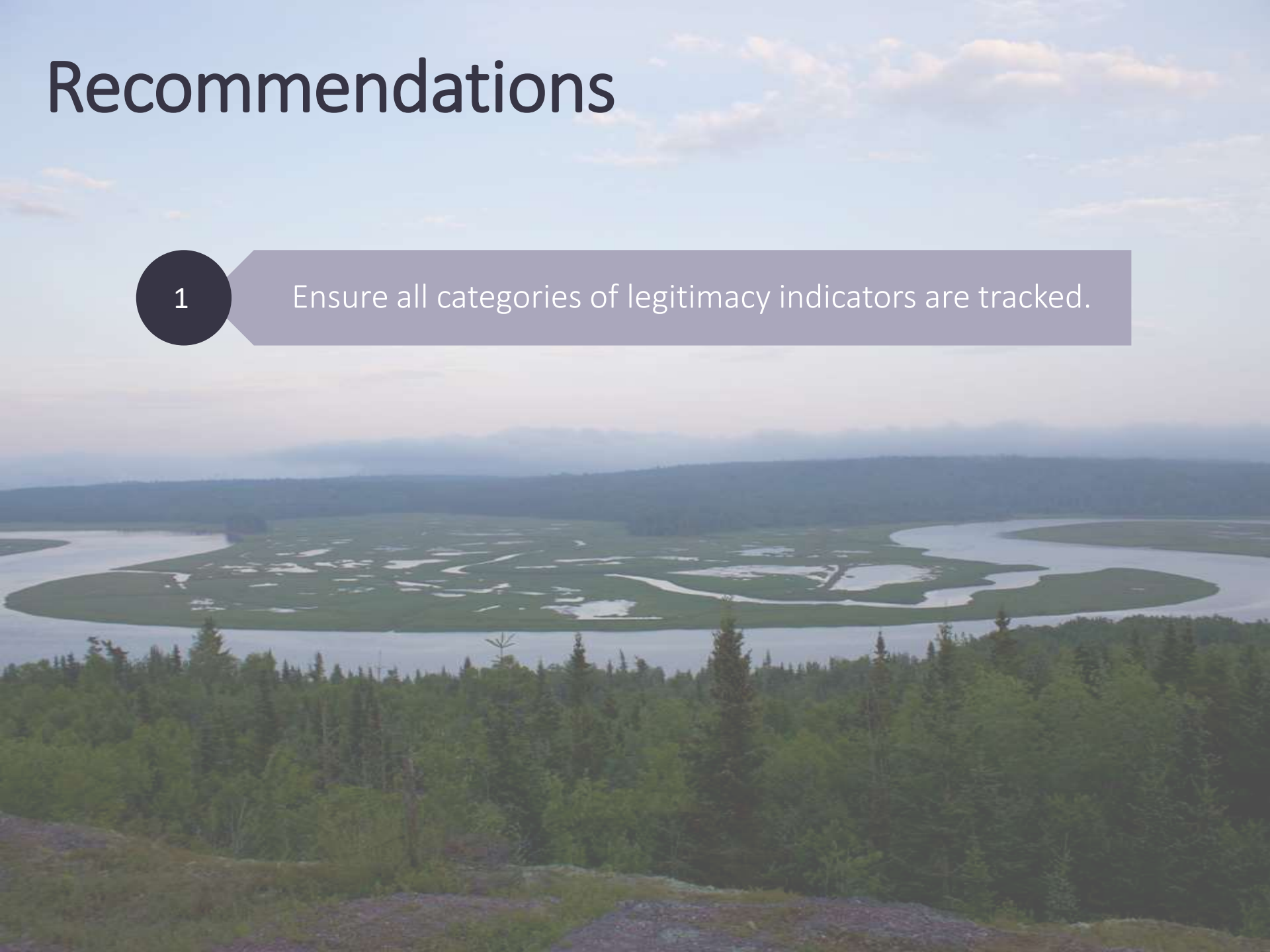
Analysis identified the “TOP 10 PRIORITY” indicators to stakeholders at each site



Recommendations

1

Ensure all categories of legitimacy indicators are tracked.



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Use the novel legitimacy indicator framework as a guide for obtaining and assessing legitimacy.

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Increase efforts to ensure community leadership of MPAs to generate trust.

4

Understand the site-specific context of MPAs.

Conclusion

1

Verification that legitimacy from all three forms is an important component of MPA effectiveness.

2

Trust, early partnerships and community leadership, science, and public education will be critical factors moving forward to obtaining legitimacy of future MPAs.

3

MPA Managers will need to give noteworthy attention to legitimacy before, during, and after MPA designation to ensure protection of Canada's marine ecosystems.



Learn More ...

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Read Full Article:

L.A. Dehens & L.M. Fanning
Ecological Indicators
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