

Table 1.2 Potential criteria for selection of indicators. DRAFT 040708)

Criteria Category	Indicator Criteria	Definition/ description	References
Conceptually Valid	Ecologically important	Bear on fundamental process or widespread change; is applicable to most of the system.	2,4,8
	Based on an understood and accepted conceptual model	The conceptual model provides the rationale for the indicator that is based on well accepted scientific theory. It provides an understanding of causal links associated with the indicator, showing an impending change in key system characteristics and/ or predicting changes that can be averted by management action.	1,2,3,4,5,6,7, 8
Relevant to PSP goals	Relevant to PSP goals	Relevant to PSP goals for one or more ecosystem components.	
Proven track record	Reliability	Ability to measure the same response over a long period. The best evidence for reliability of newly proposed indicators is that is based on a well established scientific theory.	2,4,5,8
Feasibility of Implementation	Data requirements and availability	Manageable data requirements (collection) or good availability of existing data (monitoring programs). It is also desirable that the tools needed to take the measurements are widely available, inexpensive to use, and of known accuracy and precision.	1,2,3,4,5,6
	Cost-benefit and cost-effective	The benefit of using/ implementing an indicator outweighs the cost. The indicator is inexpensive to measure providing maximum amount of information per unit effort.	1,2,3,4,7, 8
Statistical Properties	Consistently measurable	Measurable in qualitative or quantitative terms; technologically able to be remeasurable	1,3,4,5,6
	Temporal and spatial scales of applicability	Provides information at the right spatial and temporal scale; applicable to most of the system.. Temporal and spatial scales should not be overwhelmed by variability.	1,2,3,4,5,6,7,8
	responsive to change (sensitive) and robust	Indicator is sensitive to detect significant changes in variables of interest; signal can be detected over system noise yielding reliable and useful values.	1,2,3,4,5,6,8

Criteria Category	Indicator Criteria	Definition/ description	References
Management and Reporting Needs	Linked to management responses	Connects with real world policy and management issues, well established links with specific management practices or interventions.	2,3,4,5,6,7
	simple, easily interpreted	Easily understood by a target audience. Capable of distinguishing acceptable from unacceptable conditions in a scientific and legally defensible way.	1,2,5,6,7
	Timely	Provides information quickly enough to initiate effective management action before unacceptable damage has occurred.	1,3,4,5
	User driven**	Involves stakeholders	4,5,7
	Clear measurable targets/ thresholds***	Indicator value that is used to determine when to take action	
	International compatibility	A bility of the indicator to be compatible with indicators being developed or used by other nations and international groups.	2,4,8

Criteria indicated in **bold**, are essential for indicator selection

* Modified from Kurtz et al.2001

** Not used in Phase1

***To be be developed at a later process

References

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4. Niemeijer D and De Groot R.S. 2008.
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- 7.Thom R. M; O' Rourke L.K. 2005.
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